Study Unit

Decorating with Furniture

Preview

After living with the same furnishings for many years, some people still push their sofas and chairs here and there in search of the best arrangement. Why do so many people constantly rearrange their furniture, and why do so many continue to be dissatisfied with the results? Many times, such people could have benefited years before from the services of a professional decorator.

Successful furniture arrangement isn't a matter of hit-and-miss. Success results when professional skill is applied to the job of furniture arranging. A decorator doing a job for a client can't go back to the client's home, over and over and through the years, to keep moving furnishings around. The job must be done right when the furnishings are installed. So, it's vitally important that you learn the skills of successful furniture arrangement before taking on professional decorating jobs.

Many factors are involved in determining the right place for each item in a room. A professional decorator must consider all of these factors regarding each furniture piece. Then, the decorator puts the pieces together in the right groupings and in the right places, according to the guidelines for a successful arrangement. The process is challenging, but it can be fun. Once all of the pieces have been fit into place, the decorator will enjoy a certain amount of satisfaction—not unlike the gratification that follows solving a mystifying jigsaw puzzle. In *Decorating with Furniture*, you'll learn how to solve the puzzles involved in making proper furniture arrangements.

When you complete this study unit, you'll be able to

- Plan furniture to meet a client's needs based on best use as well as appearance
- Recognize traffic patterns in a room and plan furniture arrangements around them
- Create harmonious furniture arrangements by balancing line, object, and space and by combining harmonious materials and styles
- Measure a room, make a rough sketch of the room, and prepare an accurate scaled plan
- Plan furniture for a room by using blueprints when available or scaled floor plans
- Use templates in planning furniture arrangements
- Recognize quality workmanship in furniture
- Analyze the focal points and architectural elements of a room when planning furniture arrangements

Remember to regularly check "My Courses" on your student homepage. Your instructor may post additional resources that you can access to enhance your learning experience.

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Decorating with Furniture

GUIDELINES TO FURNITURE PLACEMENT

The factors you should consider when planning a furniture arrangement can be divided into the following two groups:

1. Best-use considerations
2. Best-appearance considerations

The *best-use considerations* include those factors relating to a client's physical needs. The factors in the *best-appearance considerations* are related to decorating a room in a way that's most aesthetically pleasing. Soon, we'll discuss both of these considerations in detail. First, however, let's consider which is more important—best use or best appearance.

Ideally, each piece of furniture should be placed so that it's right both for best use and for best appearance. In reality, however, conflicts often occur. A piece may look best in one particular location, but that location may be impractical with respect to use. In such a case, give best use the priority. For any interior design to be successful, a client's physical needs must be met. A chair may look just perfect in the corner behind the door, but if the family never uses it, the chair is probably in the wrong the spot. The family may actually need that extra chair in the grouping where they customarily gather.

So, when considering where to place furniture, consider first where the furniture would get the best use. Considering the best appearance first usually leads to a decorating disaster. It's unlikely that a good-looking and livable room will result by putting each piece, one after the other, in a spot where each looks best. Instead, you must first consider best use and think about how the individual pieces in the room will relate to each other. Only then should you consider where each piece would look best.

An Endless Supply of Furniture Decorating Ideas

For advice on decorating with furniture, check the big decorating Web sites on a regular basis. Many have newsletters to keep you posted on new articles or RSS (really simple syndication) feeds to bring your interests to your attention as soon as you turn on your computer. Here are two places to start:

http://www.homeandfamilynetwork.com

http://www.hgtv.com/hgtv

On the home pages of these two sites, look for the links to "Decorating."

Best Use

While the needs of individual client may vary, you must consider certain standard factors when determining best use of the furnishings in a room. Figures 1 and 2 show examples of how groupings can be designed for best use. Furnishings can be grouped to provide dual or even triple functions where space is limited.

FIGURE 1—This room was decorated for a couple who like to sit in the evenings and read. The table between the two chairs holds a reading lamp, but it can also be used as a place for a cup of coffee or a cold drink. The ottoman in front of the chairs can serve as a footstool or as a table. Also, can you see the reflection in the pictures on the wall behind the chairs? It shows two windows on the opposite side of the room that provide a nice view for those sitting in the chairs.

Identifying the Necessary Furnishings

The number of pieces of furniture you have to deal with determines how easy or difficult a decorating job will be. If you're starting from scratch, you can control the number of pieces you put into a room. However, if you're called upon to redecorate a room in which most of the client's furnishings are to be retained, you may inherit a clutter of excess furnishings. If you think the room has too much furniture, your first job will be to evaluate each piece to determine if it's a necessary part of the room. Your second job will be to convince your client to give up the unnecessary parts of that clutter.

An underfurnished room—that is, a room with a little furniture—is far preferable to an overfurnished room—that is, a room cluttered with too much furniture.

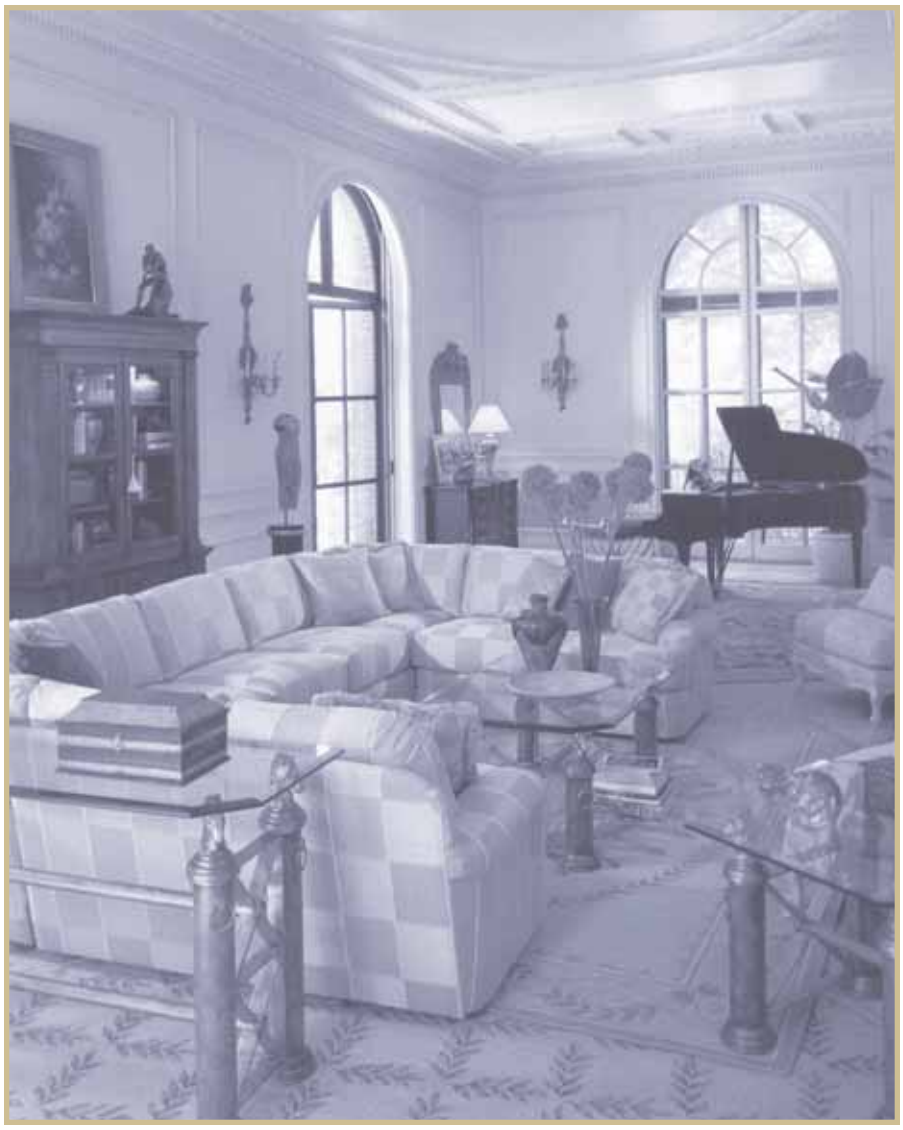


FIGURE 2—This sectional furniture grouping is a good example of the importance of thinking in terms of groupings rather than of single pieces of furniture. (Photography courtesy of Drexel Heritage Furnishings)

Grouping according to Use

In planning furniture arrangements, very seldom would you concentrate solely on an individual item. You would consider how the furniture would function within a grouping, especially if the grouping is intended to serve a useful purpose in the room. Because different furnishings are often used during a single activity, they should be grouped together appropriately.

A reading chair, for example, may be accompanied by an end table and a light source—perhaps a lamp placed on the table. A footstool may be used with the chair. Together, these furnishings constitute one group. This group may stand alone if

the furnishings are placed, for example, in the corner of a person's private library room. Such a room may be intended as a place for solitary reading and quiet contemplation.

The reading chair and its accompanying furnishings, however, may be part of a larger group. In a small home, the reading group may be placed in a living room where the furnishings must occasionally serve as part of a larger conversational group. This larger group may include a sofa, the double-duty reading chair, and a third chair or a love seat—all positioned as one group. Additional items would also be part of this larger group. An end table, a coffee table, and perhaps some lamps must be added to serve the sofa and the other chair. The end table can hold a lamp and such accessories as a guest's drink or plate so that the guest won't need to make repeated and awkward lunges toward the coffee table. So, this one grouping will actually contain several individual groups because physical comfort must be provided wherever people will sit.

Thus, when planning your furniture placement, consider both individual groupings and larger groupings that may consist of several individual groups. First establish the essential groupings for living—that is, what groupings are necessary for the people who live there. Once you've settled on what these groupings are and where they should go, you'll find it easier to position additional pieces such as end tables and side chairs. You'll see how this process works as we continue our discussion and try some sample arrangements.

Recognizing Traffic Patterns

When engineers plan highways, they must first study the volume and pattern of the traffic in the area in which the highway is to be built. Similarly, an interior decorator must analyze the traffic patterns of a home or room before he or she plans the furniture arrangements. In a home, the term *traffic pattern* refers to the way family members and guests get from one place in the home to another. Of extreme importance in planning a room is to make the traffic flow as smoothly as possible.

The best way to establish a traffic pattern is to first obtain the floor plan of the home. If none is available, simply sketch the floor plan on a sheet of paper. Your sketch doesn't have to be perfectly accurate. Once you have a floor plan, imagine yourself as someone who lives in the home. Picture yourself going through your daily routine and imagine how you would walk to get from one place to another. Consider your activities throughout an entire day. Sketch the traffic pattern on your floor plan. You should be able to see where traffic is heavy and where it's light. Then, you can use this information to help you plan the placement of furniture in each room. Figure 3 shows a sample floor plan with traffic patterns indicated.

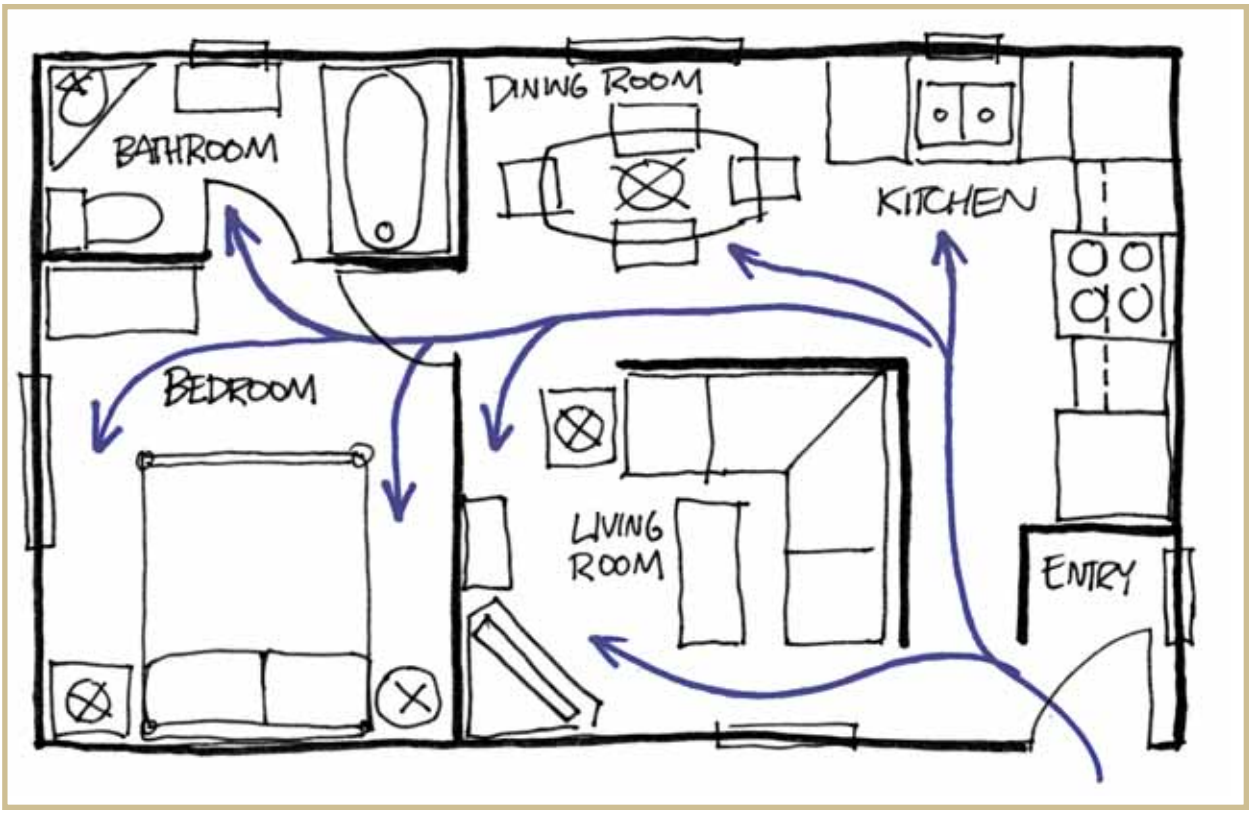


FIGURE 3—The traffic patterns in a home can be of great value in helping you to determine furniture placement.

As you arrange the furniture, keep the traffic patterns in mind. Be sure to place the furniture out of the main flow of traffic, which should move uninterrupted through the room. One way to do this is to start with the largest piece of furniture you have. Place it near the largest wall, facing your focal

point. Next, move the chairs together to create a conversational area. Make sure tables are within reach, but not blocking the flow of traffic. Don't let potted plants, lamps, or other items make their way into positions that will be awkward to get around.

As you can see, natural traffic patterns are crucial for planning furniture placement. After you've established the traffic patterns and arranged the furniture, you should then recheck all of the traffic patterns to determine if your arrangement best suits these patterns.

Recognizing traffic patterns involves making space allowances on a floor plan. You can allow for the necessary space by applying common sense. When in doubt, you can always set up some pieces of furniture in the questionable positions and personally test for freedom of movement. In addition to applying common sense and to experimenting, refer to these standard guidelines when making space allowances:

- Provide a minimum width of 4 ft (feet), or 120 cm (centimeters), for major traffic areas. If possible, allow 5 ft (150 cm) where two people frequently must walk side by side.
- Allow at least 18 in. (inches), or 46 cm, for an area of minor traffic.
- Allow 12 to 18 in. (31 to 46 cm) between a coffee table and a sofa. This space should never be so narrow that people must shuffle sideways to reach or leave the sofa.
- In a dining area, allow 2 ft (60 cm) for a chair to be pulled back from the table so that a person can sit down. Provide 4 ft (120 cm) of space from the table to the wall if someone must pass behind a seated diner to serve.
- Allow a minimum of 18 in. (46 cm) between a bed and a wall to accommodate someone dressing the bed.
- Provide 3 ft (90 cm) of space in front of drawers to accommodate someone standing before them when open.

Best Appearance

Arranging furniture for best appearance is an art something like that of arranging a bouquet of flowers, only on a larger scale. You must think of the *overall effect* as the goal toward which you're developing an arrangement. Yet, to achieve that goal, you must also consider *each piece* that makes up the arrangement, just as you would consider each blossom, sprig, or leaf that makes up a floral bouquet (Figure 4).

FIGURE 4—When floral designers plan flower arrangements, they must consider each individual piece that makes up the whole. As an interior decorator, you must consider each piece of furniture and each accessory as it relates to the entire room.

When arranging a bouquet, you would first consider the quality and appearance of each individual flower. Then, you would observe how the flower appears when placed next to others. How does this flower blend or contrast with the flowers next to it? Finally, what's the overall appearance of the assembled flowers? Do they form a pleasing bouquet? Is the overall shape and effect pleasing? Are the flowers properly varied in height to achieve an attractive shape? Is the height of the bouquet in correct proportion with its width and with the container or vase? If you see that an individual flower doesn't look appropriate as part of the whole bouquet, you would quickly remove or reposition it.

So it is with the decoration of a room. You must consider each piece for its quality. Then, you must consider it in relation to the objects around it. Finally, you must make sure the furnishing fits as part of the whole. If it's not successful as part of the whole, the piece must be changed or replaced. A professional decorator is never determined to keep one particular piece in one particular place, forcing the furniture arrangement to develop around it. The appearance of the *whole room* must be considered as the most important goal.

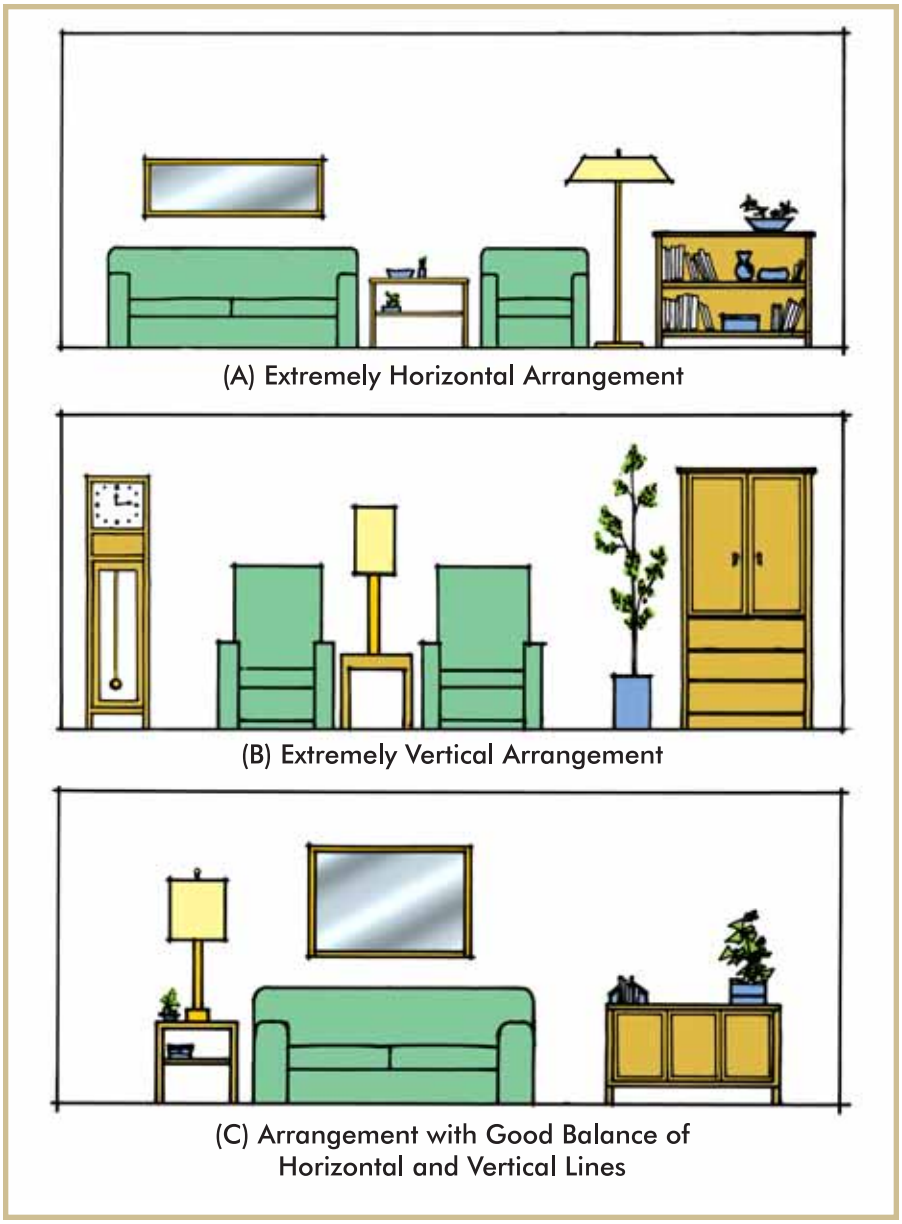
Line Considerations

One design element to consider in planning for the best overall appearance of a room is that of line. Both horizontal and vertical lines must be included for a room to look right. If all or most of the furnishings in a room consist entirely of low horizontal lines, the room will look odd and incomplete. If the furnishings consist entirely of vertical lines, the room, again, will look odd and incomplete. Each room should have a mix of lines to get a balanced look.

But what sort of mix? Should it be half horizontal and half vertical? No, half and half is too even—too exact—to appear natural. Such an exact balance becomes almost as unnatural as having only horizontal or only vertical lines. So, a room should have more of one type of line than the other. Which line should be featured and how much it should dominate depends on the effect you want to create.

In general, low horizontal lines convey serenity, while vertical lines suggest strength and formality. Adding more of one or the other, then, can affect the mood of the room. Typically, a room looks best with more horizontal lines in its furnishings and with only one dominant vertical line, such as that provided by a floor-to-ceiling bookcase or cabinet. A floor-to-ceiling vertical line can also be created by adding a tall mirror or a painting over a low table. Lesser vertical lines can be created by adding a high-back chair or a grouping that rises only two-thirds as high as the dominant vertical group. Figure 5 shows how lines can be used (and misused) in decorating a room.

FIGURE 5—When grouping furniture together, consider the line combinations that you're creating.


(A) Extremely Horizontal Arrangement
(B) Extremely Vertical Arrangement
(C) Arrangement with Good Balance of Horizontal and Vertical Lines

When the furnishings consist of all horizontal lines, as in Figure 5A, the eye is drawn only from left to right. The room seems incomplete and looks monotonous. On the other hand, an almost exclusive use of vertical lines, as shown in Figure 5B, draws the eye repeatedly up and down. The furnishings make the arrangement seem too imposing. Neither the eye nor the viewer can relax in such a setting. With the grouping in Figure 5C, however, the eye can travel freely about the room. One strong vertical line (in this case, formed by the sofa and the painting above it), one or two lesser vertical lines, and a somewhat greater number of horizontal lines provide the best balance in this grouping.

To see the effects of horizontal and vertical lines on actual rooms, look at Figures 6 and 7. In Figure 6, the arrangement has a well-balanced mix of horizontal and vertical lines. The poster bed provides the main vertical line. The *armoire* provides a lesser vertical line. The dresser at the left provides a horizontal balance to the room. (Beautiful old armoires are now frequently adapted to provide decorative shelved storage for housing televisions and stereo components.) When the lines of a large furniture grouping are all strongly horizontal, as shown in Figure 7, you must often rely on the wall treatment to supply some needed vertical lines. Occasionally, though, a tall plant may be used to supply the vertical line.

An *armoire* is a large piece of wood furniture, originally designed to serve as a freestanding clothes closet.

FIGURE 6—This room contains a good balance of horizontal and vertical lines, so a serene, restful atmosphere results. (Photography courtesy of Drexel Heritage Furnishings)

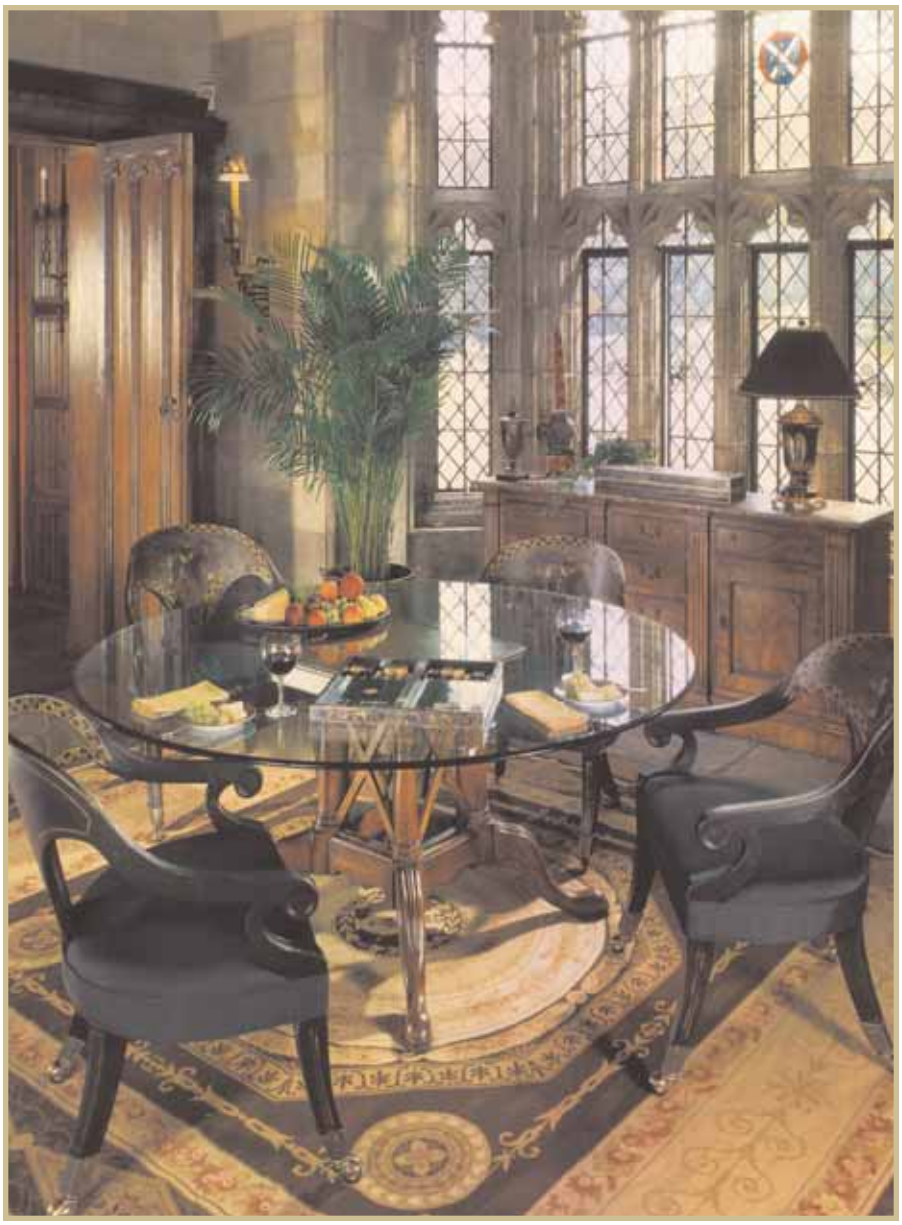


FIGURE 7—Strongly horizontal lines need vertical relief. (Photography courtesy of Drexel Heritage Furnishings)

Furniture Combinations

The closer together two pieces of furniture are, the more imperative it is that their appearances successfully complement each other. Two pieces of furniture may each be suitable to the overall effect of the room, yet they may not look good next to each other because of conflicts in their appearances. In such a case, you can often use both pieces in the same room by spacing them far enough apart so that the eye won't rest on both at the same time.

When combining pieces within groupings, consider the following three important factors:

1. *Wood combinations must be compatible.* Pieces used together don't necessarily have to be made of the same type of wood. In fact, it's frequently more interesting to mix pieces of different woods. However, the pieces must be compatible. For example, coarse-grained woods, such as oak, don't blend well with fine-grained woods, such as mahogany. An informal wood, such as pine, shouldn't be combined with a formal and sophisticated wood, such as satinwood.
2. *Furniture pieces used close together must share the proper scale.* By placing very large and very small pieces next to each other, you may unintentionally emphasize their differences in size. When used as part of a grouping, furniture pieces should enhance each other's appearance.
3. *Formal and informal pieces shouldn't be placed next to each other.* In fact, it's seldom that formal and informal pieces can be used successfully in the same room.

Objects and Space

When you're planning the furniture placement in an empty room, you're not just trying to fill space. Instead, you're balancing objects and space to achieve good appearances. Space is a decorative element in the decor of a room. You must consider it as if it were an actual object itself. The walls, flooring, and ceiling form the flat backgrounds against which the furnishings are seen. In a similar way, space is the three-dimensional background within which the furnishings are placed.

The decor of a room must have a good balance of objects and space. Visually, space is light, colorless, and unobtrusive. A certain measure of space, therefore, can be used to balance an object or group that has a lot of visual weight or color or texture. The more imposing an item is in terms of size, color, texture, and ornamentation, the more space is needed to balance it. That's why, for example, a heavily carved and oversized armoire, which looks magnificent in a grand palace

hall, would be out of place in a smaller room. When used in too small of a room, the armoire wouldn't be balanced by sufficient space. It would be out of scale with its surroundings.

In contrast, Figure 8 shows an example of a room in which furnishings and space are balanced. Here, you can actually recognize that the empty spaces of the room have been used as design elements. The decorator's success resulted from selecting the appropriate scale and placement of the objects. The furniture is adequate, but not cluttered; the walls are decorated, but there's sufficient empty wall space.

FIGURE 8—In this room, the balance of objects to space is excellent.

Sometimes, you may not be able to achieve balance for best appearance because you must provide for best use. For example, suppose you have two groupings of furniture that are arranged exactly as needed for the client's activities, but the groupings don't balance. One is decidedly heavier in overall appearance than the other. In such a case, you'll need to use color, pattern, light, and space to bring the groupings into balance.

A floor plan can be crucial when selecting colors and fabrics for specific pieces. Once you've planned your furniture arrangement on paper, you'll realize what jobs the colors and textures of certain pieces must do in the room. Thus, you'll be better able to make selections of colors and fabrics for providing the best effect.

Figure 9 shows another example of a good balance between decorating materials and empty space in the room. Once again, you can feel the room's empty space as a design element. The scale is correct; the sizes of the various objects relate well to the size of the room's empty space. As you become more conscious of empty space as an element in room design, your own room designs will become more professional looking, whether you're developing very modern interiors or period interiors.

FIGURE 9—Empty space is actually an element in room decorating. (Photography courtesy of Drexel Heritage Furnishings)

Special Considerations for Special Pieces

The Interior Climate

Exposure to strong sunlight, humidity, extremes of heat and cold, or simply frequent changes in temperature may affect various pieces of furniture. If a room you're decorating is affected by such extremes, you'll be limited by where you can place these pieces in a room. Strong sunlight, for example, can fade colors in upholstery. Also, wood pieces are subject to damage from all of the factors just mentioned. The harm that may be caused includes warping, split wood, damage to the finish, and the nuisance of ill-fitting and poorly moving drawers and doors.

Before you choose the placement of susceptible pieces, check the positions of windows and doors, the direction of any exposure, and the position of heat sources in the room. More importantly, plan your window treatments for energy efficiency to help lessen the effects from some of these factors.

Electronics and Musical Equipment

Entertainment centers, electronics, computers, and musical equipment are important in many homes. As an interior decorator, you should know how to place these items to achieve the best *acoustics*, or sound effects, and to prevent damage to these costly items.

Ideally, stereo equipment and entertainment centers should be placed near a wall with a hard surface. The wall opposite the set should be softly draped, or it should have upholstered seating pieces for the listeners. This combination of hard and soft surfaces will produce the best acoustical effect.

Pianos and organs should generally be placed along an inside wall, away from windows, radiators, and other sources of temperature and humidity changes. Their sound mechanisms are affected by extreme atmospheric changes. Ideally, a grand piano should be positioned away from any wall. However, most rooms today simply aren't large enough for such an

arrangement. If you must place a grand piano along a wall, you should position it so that the wall is on the pianist's left side.

Pianos and keyboards must be placed where they're subjected neither to extreme temperature changes nor to high humidity. Suppose a client lives near the ocean. Her home has no air conditioning, and she tends to keep the windows open. This home may have a problem with humidity. There would be no really good location for a piano. In such a case, suggest adding a *piano damper,* which is a low-cost electrical heater that fits unobtrusively under the keyboard. It maintains a very low heat level, just sufficient to counteract the bad effects of humidity on the playing action of the piano.

When you're placing your client's valuable equipment, be sure to consider both indoor and outdoor factors in your floor plan.

Computer equipment and electronics should also be kept away from windows and doors where damage from outside elements could possibly result. Televisions in entertainment centers should also be kept from direct sunlight. You may think you have the perfect placement for an entertainment center, but then the glare of the sun makes daytime television viewing impossible.

In the next section, you'll begin to study how to position furniture on a floor plan. Before continuing, take a few moments to complete *Self-Check 1*.

Self-Check 1

At the end of each section of *Decorating with Furniture*, you'll be asked to pause and check your understanding of what you've just read by completing a "Self-Check" exercise. Answering these questions will help you review what you've studied so far. Please complete *Self-Check 1* now.

1. The factors you must consider when planning furniture placement can be divided into two groups. What are these groups and which group of factors should you consider first?

   _____

   _____

   _____

2. Is it easier to develop a good furniture arrangement if the room contains many pieces or few pieces of furniture?

   _____

3. Is it normally better to have more horizontal lines or more vertical lines in the furnishings of a room?

   _____

4. As an interior decorator, how should you consider empty space when planning the arrangement of a room?

   _____

   _____

5. What factors relating to interior climate should you consider when planning the placement of furniture?

   _____

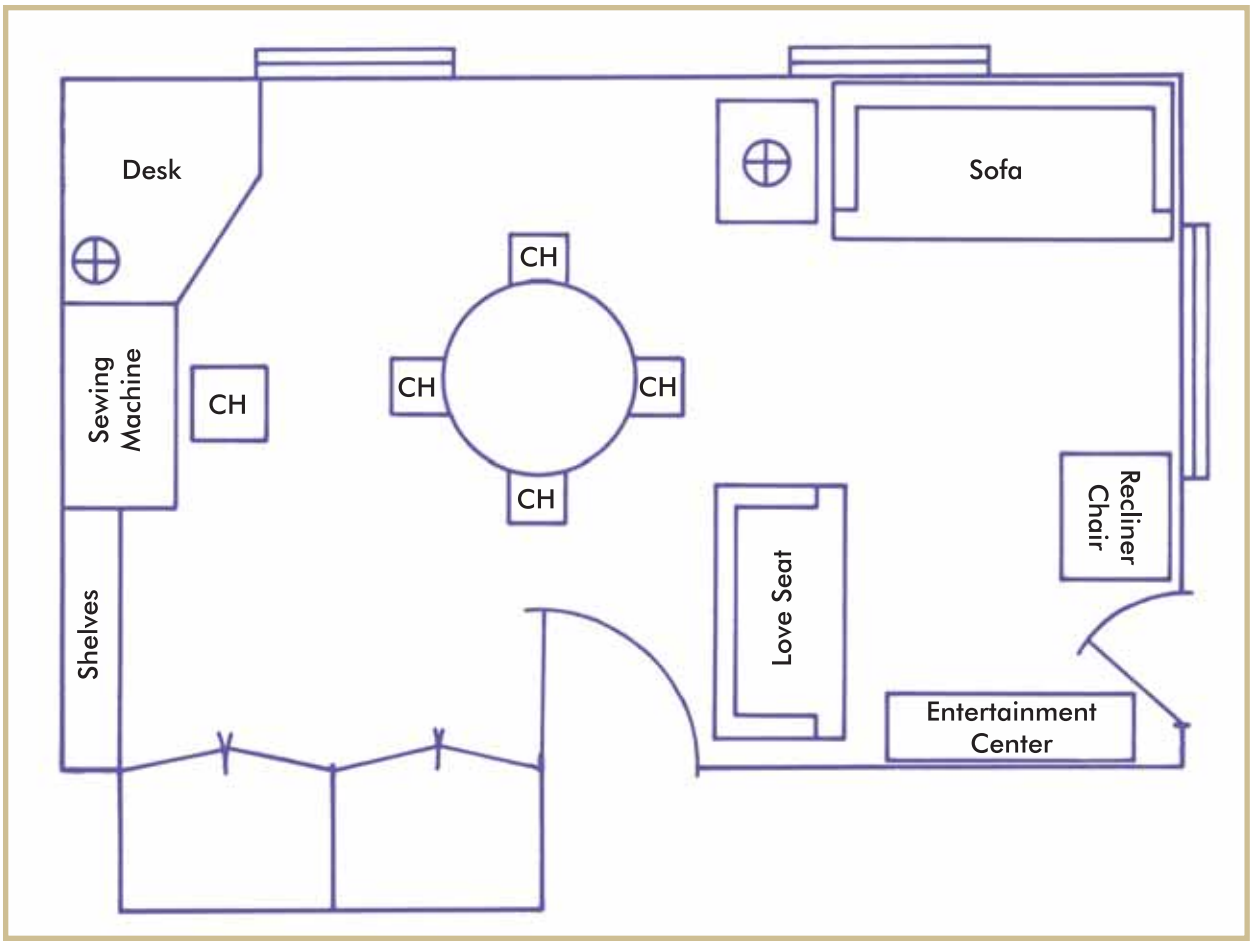
   _____

   _____

(Continued)

Self-Check 1

6. Use the illustration below to answer this question. At first glance, this furniture plan seems all right; however, it does contain a flaw. Two furniture pieces, if positioned according to this plan, will interfere with the flow of traffic through the room. Identify those two pieces.



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_____

Check your answers with those on page 97.

FLOOR PLANS

Professional decorators don't develop their furniture arrangements by just pushing furniture around a room. They first develop the arrangements on floor plans.

When to Develop a Plan

Ideally, you should develop a furniture arrangement before you even purchase the pieces. You can then purchase pieces suitable to the arrangement. In this way, you'll be sure to obtain pieces with the proper visual weight and dimensions. And you'll avoid making purchasing mistakes.

During your first presentation, you should submit to your client a floor plan that shows your planned furniture arrangement. The suggested floor plan will help you find out if the client has neglected to mention any specific preferences or requirements. For example, when looking at your plan, the client may indicate that he or she intends to put a grandfather clock in the corner where you planned to put a small desk and chair.

Once a client has approved a floor plan, you can be reasonably assured that he or she will agree with and understand the purchases you intend to make. Having an approved floor plan also helps keep a client from unsettling your design later by asking you to purchase "the most darling little Bavarian chest I've just seen." The floor plan, once established, makes it clear what is and isn't needed.

Preparing for the Floor Plan

You must absorb a great deal of information in interviewing your client and inspecting his or her home. Therefore, you shouldn't leave a client's home with only your notes and your memory of the structural details. To develop a floor plan for a room, your mental picture isn't a sufficient basis from which to work. Even if you have an excellent memory for details and the way things look, you'll soon find that when you're involved in decorating more than one home, you can't expect to remember everything. For instance, exactly how far was that big window from the front door in Mrs. Johnson's house? Is there room in Mr. Glenn's home for a 9-foot sofa in the alcove near the fireplace? There are a great many such details you need to know about each place you're decorating.

Therefore, while you're in a client's home, make sure you collect all of the information you need. Take careful measurements of the room, windows, doors, electrical outlets, and any other permanent fixtures. Then, once you're back in your workplace, you can draw an exact floor plan of each room to be decorated.

The working plan you make should be so accurate that you could do every bit of planning, ordering, and purchasing without ever returning to the client's home. And have it all fit perfectly when installed!

Tracing a Blueprint

For some projects, you may be able to obtain a builder's plan or blueprint with the dimensions and measurements of the room you're decorating (Figure 10). You can trace this blueprint to create a scaled floor plan.

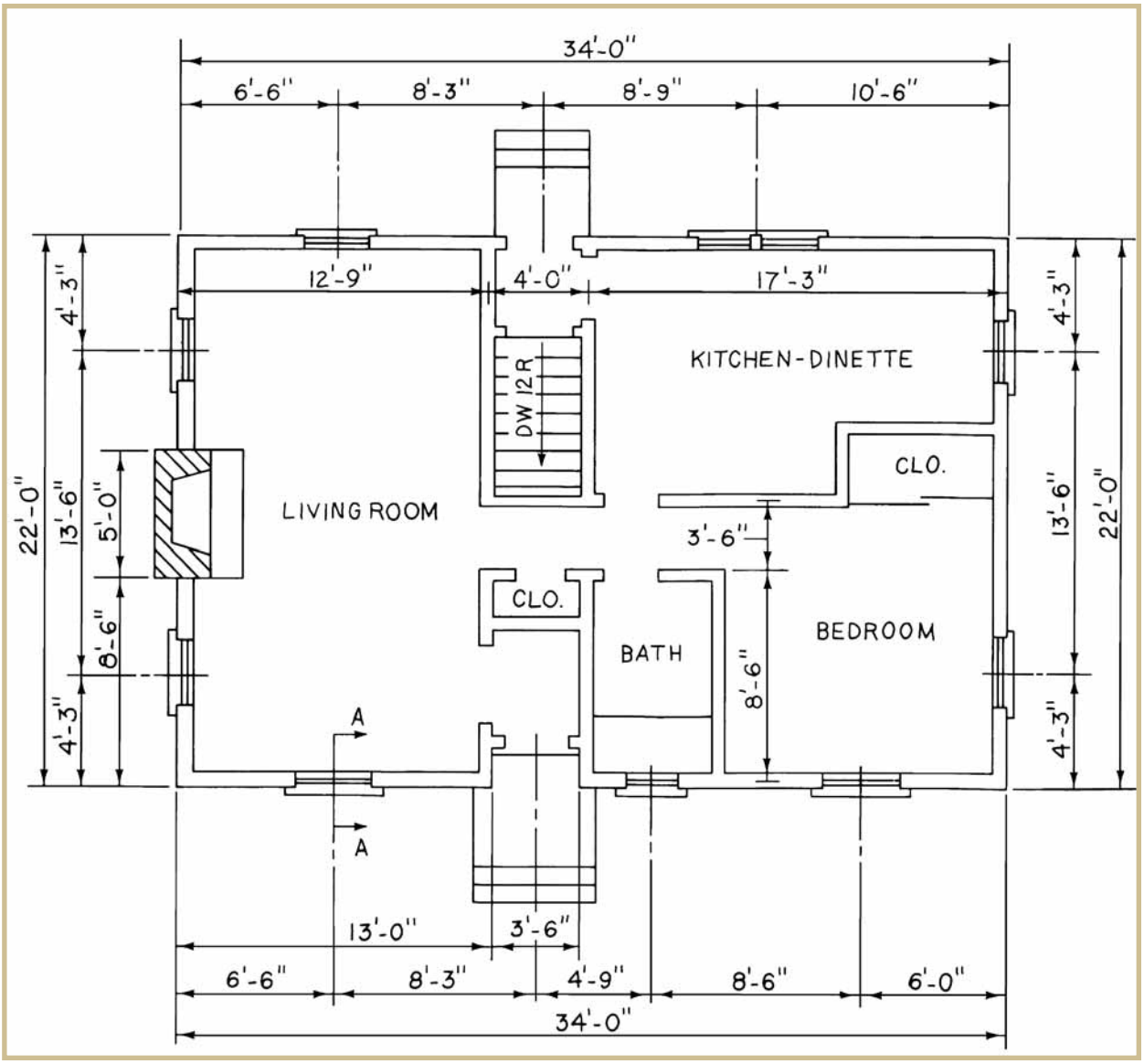


FIGURE 10—A blueprint of a room should include all of the measurements you need.

To trace a blueprint, follow these steps:

1. Choose a flat surface that has a straight edge.
2. Using a T square (Figure 11), line up the blueprint so that it's square on the surface. Tape the corners of the blueprint to the surface so it doesn't shift while you're making the tracing. (You'll be learning how to use a T square later in this study unit.)

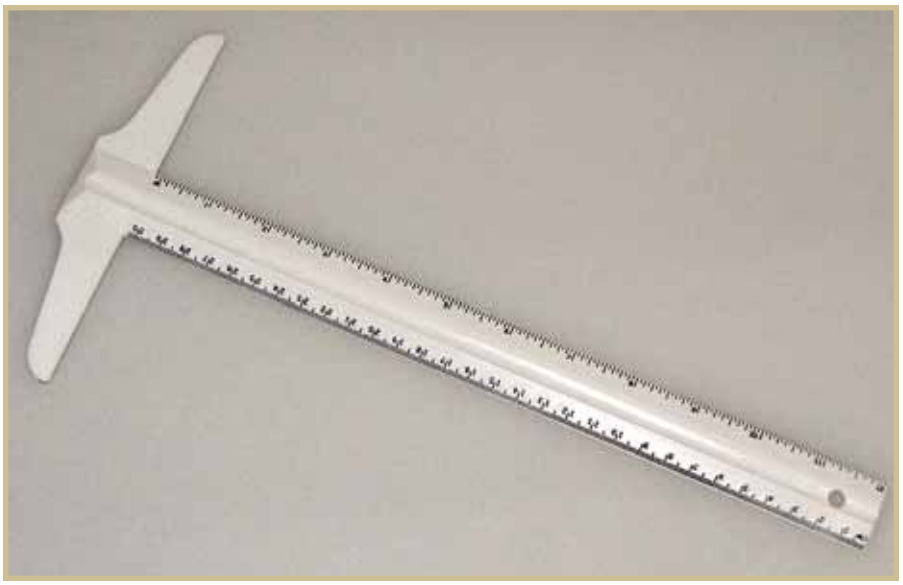


FIGURE 11—T Square

3. Lay a piece of tracing paper over the blueprint and tape the corners to the surface.
4. With a well-sharpened pencil, trace over the vertical lines first, including all cabinets and other built-in architectural features.
5. Trace all of the remaining lines. If you need to draw door swings, bath fixtures, and other features, you can draw them freehand or you can use a drafting template.
6. When you've traced everything you need, remove the tracing paper and the blueprint from the surface.
7. When you're ready to develop possible furniture arrangements, tape your tracing to the surface. Then, tape a clean piece of tracing paper over the tracing and draw your arrangements on that sheet. In that way, you can make several different arrangements with the same blueprint tracing.

Drawing Tools and Tips

For most of your decorating jobs, you'll probably be drawing a floor plan of an individual room to determine furniture placement. Here are the tools you'll need:

- *Graph paper.* Most of the scaled drawings you'll be making will require a scale in which $^{1}/_{4}$ in. = 1 ft. Therefore, the graph paper that you use should be printed with

The normal scale for residential drawings is 1/4 in. = 1 ft.

1/4 in. squares. Although the scaled figures in this study unit are drawn to represent approximately a 1/4 in. scale, you should always use 1/4 in. graph paper to produce any type of scaled drawing. Using graph paper makes it easy to draw straight lines and squares to scale.

- *Scale ruler, triangle, and T square.* These pieces of equipment are essential to drawing accurate floor plans. The scale indications will also help you to draw furniture to scale (Figure 12). (You'll learn how to use all three of these tools later in this study unit.)

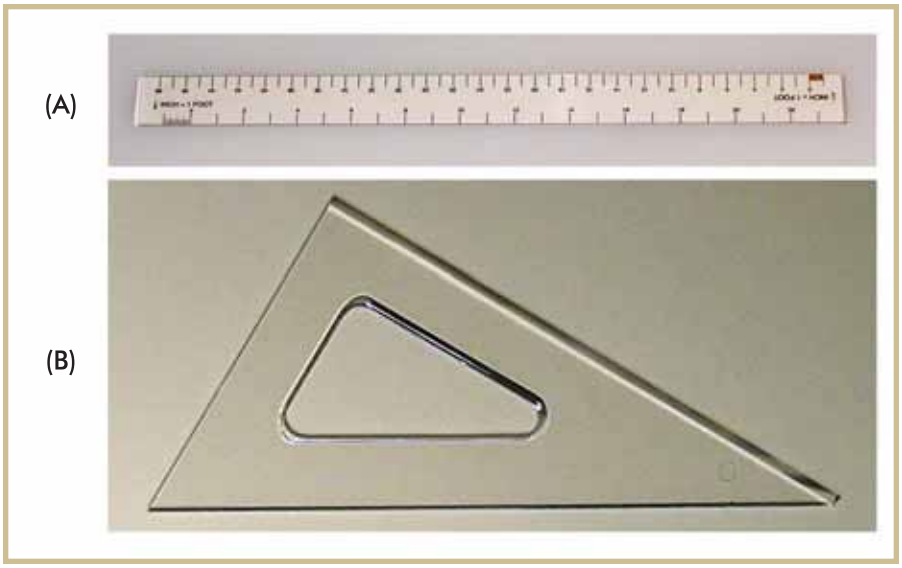


FIGURE 12—A scale ruler is marked off in different increments (for example, 1/4 in., 1/2 in., 3/8 in., and so on). The scale ruler in view A is marked off in increments of 1/4 in. This ruler is perfect for making drawings in the scale of 1/4 in. = 1 ft. The triangle in view B is used in conjunction with a T square to make right angles.

You can purchase 2H and mechanical pencils at most arts and crafts stores.

- *Mechanical pencil or 2H pencil.* Your choice of pencil is important. A 2H pencil is hard enough not to smear on the graph paper, yet soft enough to make a dark line for copying, if necessary. A mechanical pencil also works well. Keep your pencil sharpened by having either a handheld or electric pencil sharpener nearby. Frequent sharpening gives you more uniform lines and a more professional finished product.

- *Good, quality eraser.* Try to purchase an eraser specifically designed for use on graph paper. This type of eraser doesn't leave smudges when you erase a line.

- *Drafting tape or drafting dots.* Use drafting tape or masking tape to attach paper to the drawing surface. Drafting tape has a special adhesive that holds securely, but the tape may be lifted and repositioned without damaging or marking the papers to which it's affixed. If you begin to make a lot of drawings, you may decide to purchase drafting dots. These dots are round pieces of adhesive that come in dispensers. They're much neater and easier to use than masking tape.

Depending where you become employed, you may have access to a computer for drawing floor plans. Many drawing programs have clear instruction books that walk you through the process of creating a floor plan. These programs create professional floor plans to scale. Many programs can convert a floor plan into a three-dimensional drawing. If you have an opportunity to experiment with these programs, try it. It's a fun and easy way to create professional floor plans for your clients.

Drawing a Sketch of a Floor Plan

Preparation

If your project is to decorate an existing room, you must first see the room and accurately measure all of the walls and openings in the room. You may also wish to take a camera and photograph the room from various angles. Then, you would have a picture of the space just in case you forget an important detail. Make sure to take photos and measurements of any existing furniture you'll be using.

Be sure to carry a notepad and pencil with an eraser. Before you begin to take any measurements, sketch the basic shape of the room, as shown in Figure 13. Then, determine what direction the room faces and indicate the directions on your sketch. In Figure 13, the orientation of the room is shown as a simple compass that indicates north (N), south (S), east (E), and west (W).

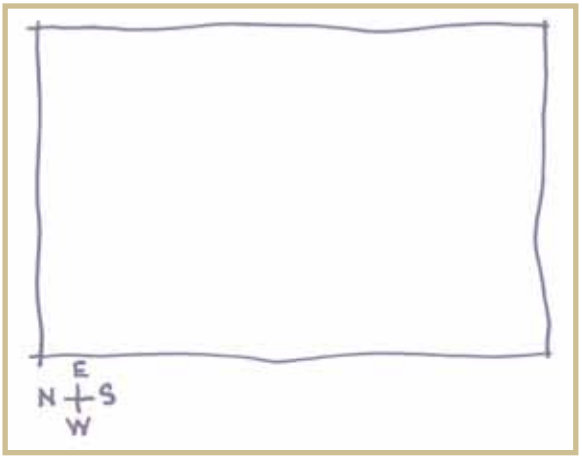


FIGURE 13—First, make a rough sketch that shows the approximate shape of the room, along with the direction that each wall faces.

Before you begin to take any measurements, you may wish to politely ask your client to leave the room or to sit quietly. In this way, you can quickly complete your measurements without any distractions that may cause possible measuring errors.

Taking Measurements

For taking measurements, use a rigid measuring device such as a yardstick, a folding ruler, or a steel tape. Don't use a cloth or plastic tape measure. These flexible measures create opportunities for errors to slip in.

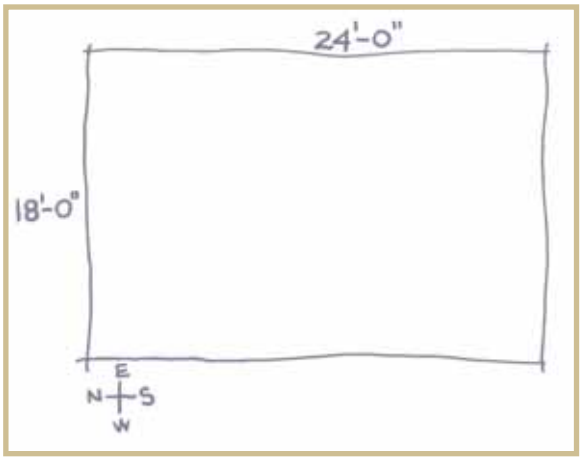


FIGURE 14—As soon as you make a measurement, immediately write it on your rough sketch.

Here's a good procedure to follow for preparing a rough sketch of a floor plan:

1. To measure the floor, start in one corner and measure along the wall to the second corner. Write this measurement on the appropriate line on your sketch. Then measure from the second corner to the third corner and write this measurement on your sketch. In Figure 14, the length of the room is 24′–0″ and the width is 18′–0″. For most typical rectangular rooms, you should have to measure only one long wall and one short wall.

Always indicate the number of feet (′) and inches (″) on a sketch. This indication applies even when there are no inches in the measurement. For example, write a measurement of 18 ft as 18′–0″. Then there's no question of whether the inches were accidentally omitted. In putting measurements onto a sketch or drawing, always use numbers and symbols for feet and inches, such as 18′–0″.

Don't trust your first measurement. Always make your measurements twice to make sure you've taken them correctly.

2. To indicate that your measurements represent the overall length and overall width of the room without regard to doorways, permanent fixtures, or other irregularities in the wall line, write the capital letters OA (overall) next to your dimensions, as shown in Figure 15.

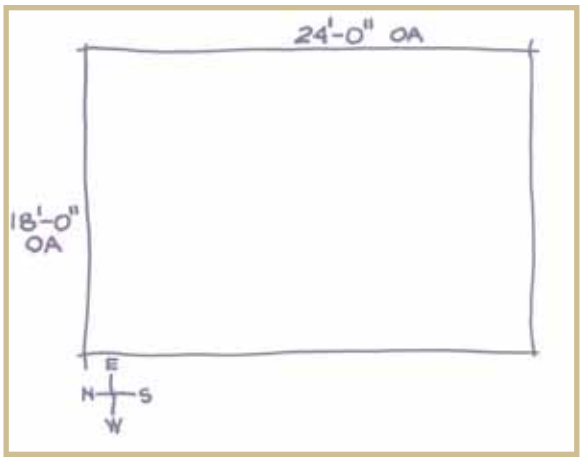


FIGURE 15—Add the letters OA to indicate that the measurements are overall dimensions.

3. Measure and indicate the positions and sizes of features on each measured wall. Suppose the room you're measuring has a door in one wall. Measure the width of the doorway opening and mark that measurement on your sketch as shown in Figure 16. In this case, the opening is 3 ft.

4. Measure the distance of the door from some previously fixed point, so you know its exact location on that wall. In this case, since you've taken only the OA measurements so far, measure from the nearest corner.

   Let's say you measure the distance from the corner to the edge of the door and find it's 6 ft. To indicate the position of the door, mark this measurement on your sketch, as shown in Figure 17. You now have the measurement of the doorway (3 ft) and its position on the wall (6 ft from the northeast corner, along the east wall).

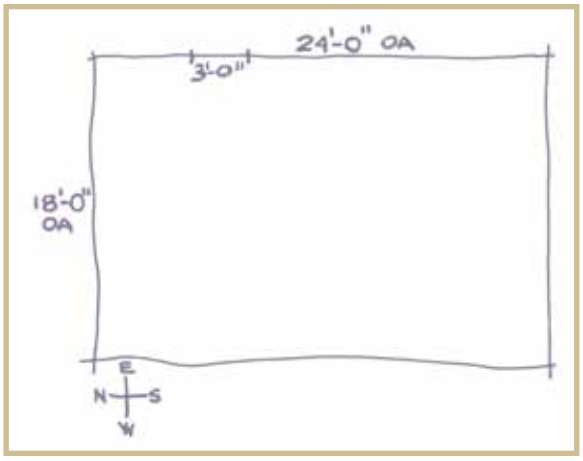


FIGURE 16—Mark the doors on your sketch as shown here.

5. Add a slanted line in the doorway to indicate the direction in which the door opens. This indication is an important consideration in room planning. Also, add a note and an arrow indicating where the doorway leads (to the outside, to a corridor, to the kitchen, and so on), as shown in Figure 18.

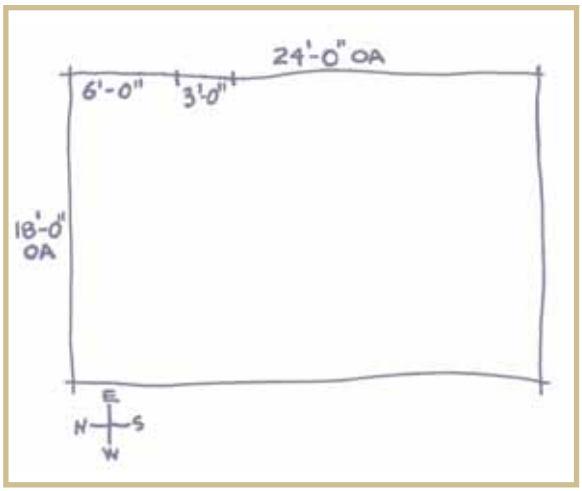


FIGURE 17—Determine the exact location of the doorway and indicate it on your sketch. In this case, the door is 6 ft from the north wall.

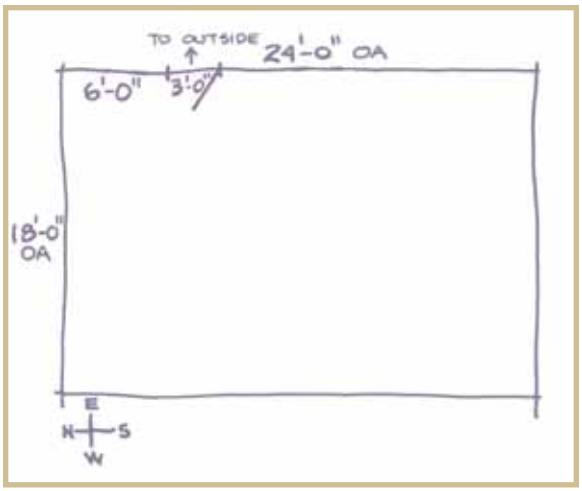
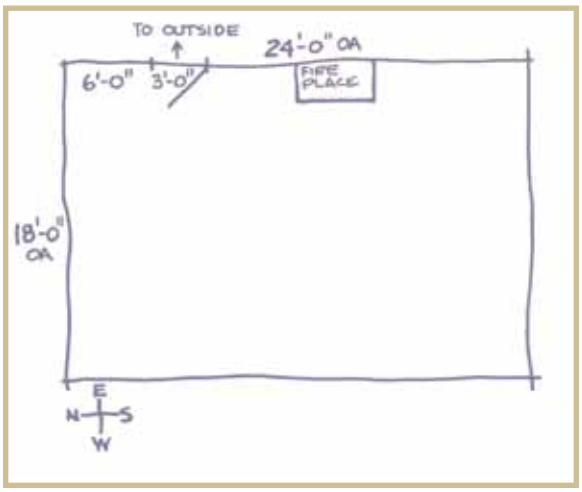


FIGURE 18—Add a slanted line to show the direction in which the door opens, and indicate where the door leads. In this case, the door opens into the room and leads to the outside.

A *hearth* is the area of the floor directly in front of the fireplace, finished in brick, stone, or other fireproof material.

6. Next, suppose a fireplace with a raised *hearth* sits along the east wall of the room. You should include this feature in your sketch since it will affect both furniture planning and the floor area that's to be covered. On your sketch, rough in the outline of the fireplace (Figure 19).

FIGURE 19—Since a fireplace is a permanent feature that you must consider in decorating this room, roughly draw it into your sketch.



7. Measure the width and depth of the fireplace and hearth and mark them on your rough sketch, as shown in Figure 20.

   Does that give you all of the information you need about the fireplace? No! When you're measuring the features of a room, you need (a) the measurement of the feature and (b) a measurement of its position in relation to some previously fixed point in your rough sketch.

8. Determine the position of the fireplace by taking a measurement either from the southeast corner of the room or from the edge of the doorway, since these are both already fixed on your sketch. Your rough sketch now looks like the one shown in Figure 21.

9. Record the measurements and record the positions of all other permanent features. Follow the same procedure just outlined for the door and the fireplace. For example, include the placement of windows on every sketch, as shown on the south wall in Figure 22. Your completed rough sketch should give you all of the information you need to continue with your plans.

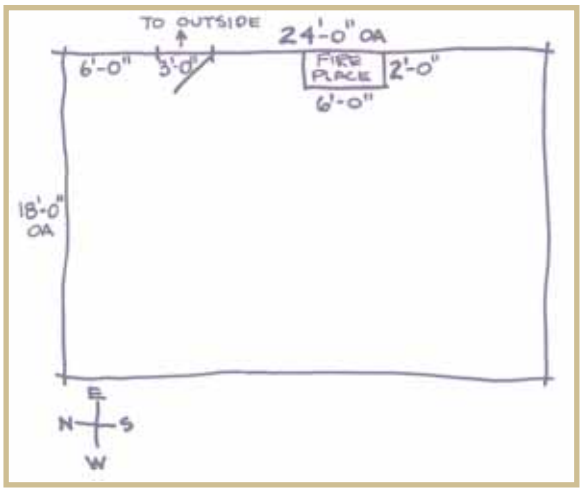


FIGURE 20—Mark the width and depth of the fireplace on your rough sketch.

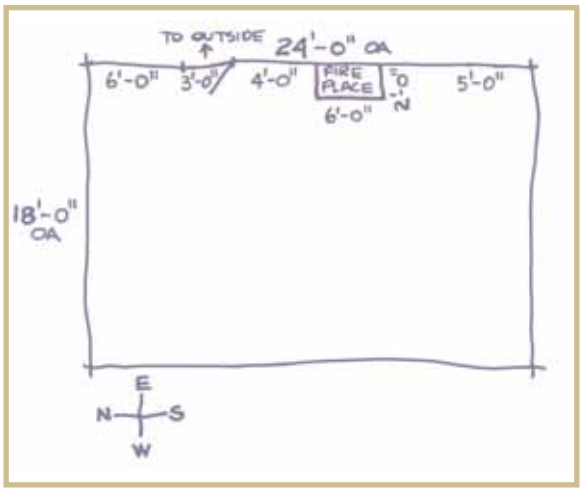


FIGURE 21—Add the measurements to show the position of the fireplace.

Now, suppose the west wall has a door that leads to the hallway. You measure this door as 3 ft wide. What other information should you include on the rough sketch? The door's position! Measure the distance from the northwest corner of the room to the doorway opening. Then record the measurements on your sketch. Finally, measure the distance from the southwest corner to the doorway opening and record that measurement.

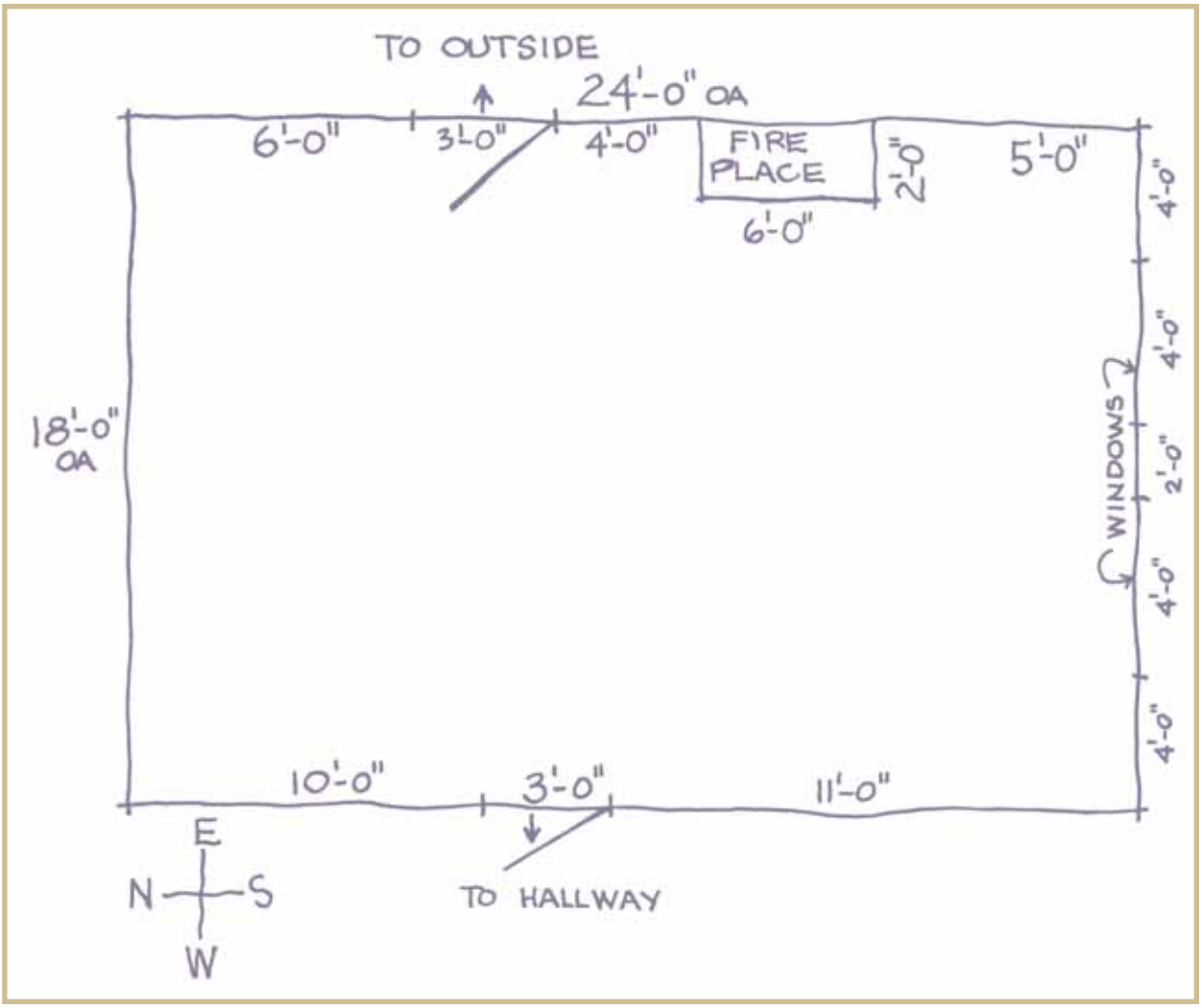


FIGURE 22—Include the measurements and positions of all other permanent fixtures.

Checking Your Measurements

If you've measured correctly, the sum of all of the individual spaces you've measured along one wall will equal its OA figure. Don't include any measurements in different directions, such as the 2 ft depth of the fireplace hearth. Use only measurements along the straight line of the wall.

Let's check the measurements of the east wall—the wall with the fireplace. From left to right, the measurements are 6 ft, 3 ft, 4 ft, 6 ft, and 5 ft. Add these measurements together:

$$6 + 3 + 4 + 6 + 5 = 24$$

This total equals the OA measurement of 24′–0″. Therefore, the measurements are correct.

Now, let's check the measurements of the south wall. The measurements from top to bottom are 4 ft, 4 ft, 2 ft, 4 ft, and 4 ft. Add these measurements together:

$$4 + 4 + 2 + 4 + 4 = 18$$

Your measurements are correct because the total equals the OA measurement of the north wall—18′–0″.

Drawing a Plan on Graph Paper

Let's take another look at that rough sketch. Because it's just a rough sketch, the lines aren't quite accurate. For example, on the east wall, the fireplace is 6 ft wide and the space between the fireplace and the south wall is 5 ft. Obviously, the lines representing 5 ft and 6 ft aren't accurately proportioned. The 5 ft wall looks longer than the 6 ft fireplace. This type of inaccuracy is fine on a rough sketch, but you now want a floor plan you can use for planning the placement of furniture pieces. You can't very well do that on a floor sketch that doesn't show the room's features in proper proportion.

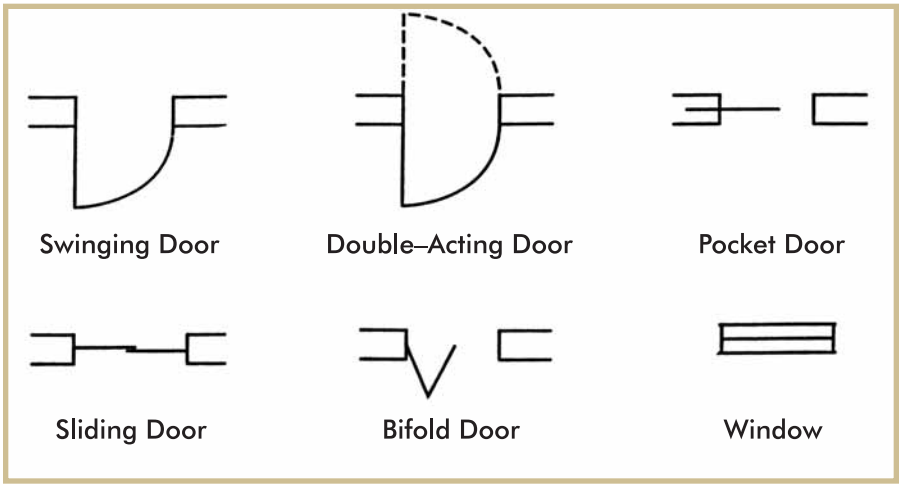
Therefore, you now need an accurate drawing that shows the room in proper proportions. Where a section of wall is 5 ft wide and a fireplace next to it is 6 ft wide, the drawing must show the wall as being exactly five-sixths the width of the fireplace. All the other parts of the drawing must be in proportion as well. Your drawing then becomes an exact miniature of the actual floor.

How do you make such a drawing without performing a lot of complicated mathematics to figure out how long to make each measured part in relation to the others? You do it by drawing everything to scale. *Scale* means that a small unit is used to represent a larger unit. The scale might be 1 in. = 1 ft or any other scale you decide upon. The important thing is that you must draw each line according to the same scale. We'll use a $^1/_4$ in. scale ($^1/_4$ in. = 1 ft), which is used by most interior decorators for planning home interiors.

Standard Floor Plan Symbols

A precise floor plan should also include symbols for the architectural features in the room, such as doorways and windows. These symbols (Figure 23) are standard in the industry. Become familiar with them and use them whenever you make a scaled floor plan. As you use them, be sure to draw them to scale so you can see how the sizes of windows and doors relate to each other and to other pieces in the room.

FIGURE 23—Standard Floor Plan Symbols



Graph Paper

One easy way to make scale drawings is to use graph paper. This paper, which can be purchased in pads, has its surface ruled into squares. The squares do the measuring for you.

Graph paper is available with different size squares. The graph paper that you'll use is $^1/_4$ in. graph paper. Each square of the graph is $^1/_4$ in. on each side. Using graph paper in which a $^1/_4$ in. square represents 1 ft results in conveniently sized floor plans, so a $^1/_4$ in. scale is most commonly used by interior decorators. When creating a floor plan on graph paper, you can simply let each square represent one foot.

Drawing the Plan

Let's draw a scale drawing of the rough sketch in Figure 22. First, draw the overall dimensions of the room (24 ft × 18 ft). To draw a wall 24 ft long, count off 24 squares (one square for each foot) and draw a line across the 24 squares on the graph paper. Use a ruler or other straightedge to draw straight, sharp lines. Then count 18 squares down and draw a line across those squares. Complete the other two walls in the same manner, as shown in Figure 24. The result is the outline of a 24 ft × 18 ft room, drawn in exact proportion because you're using a scale. The scale in this case is 1 square = 1 ft.

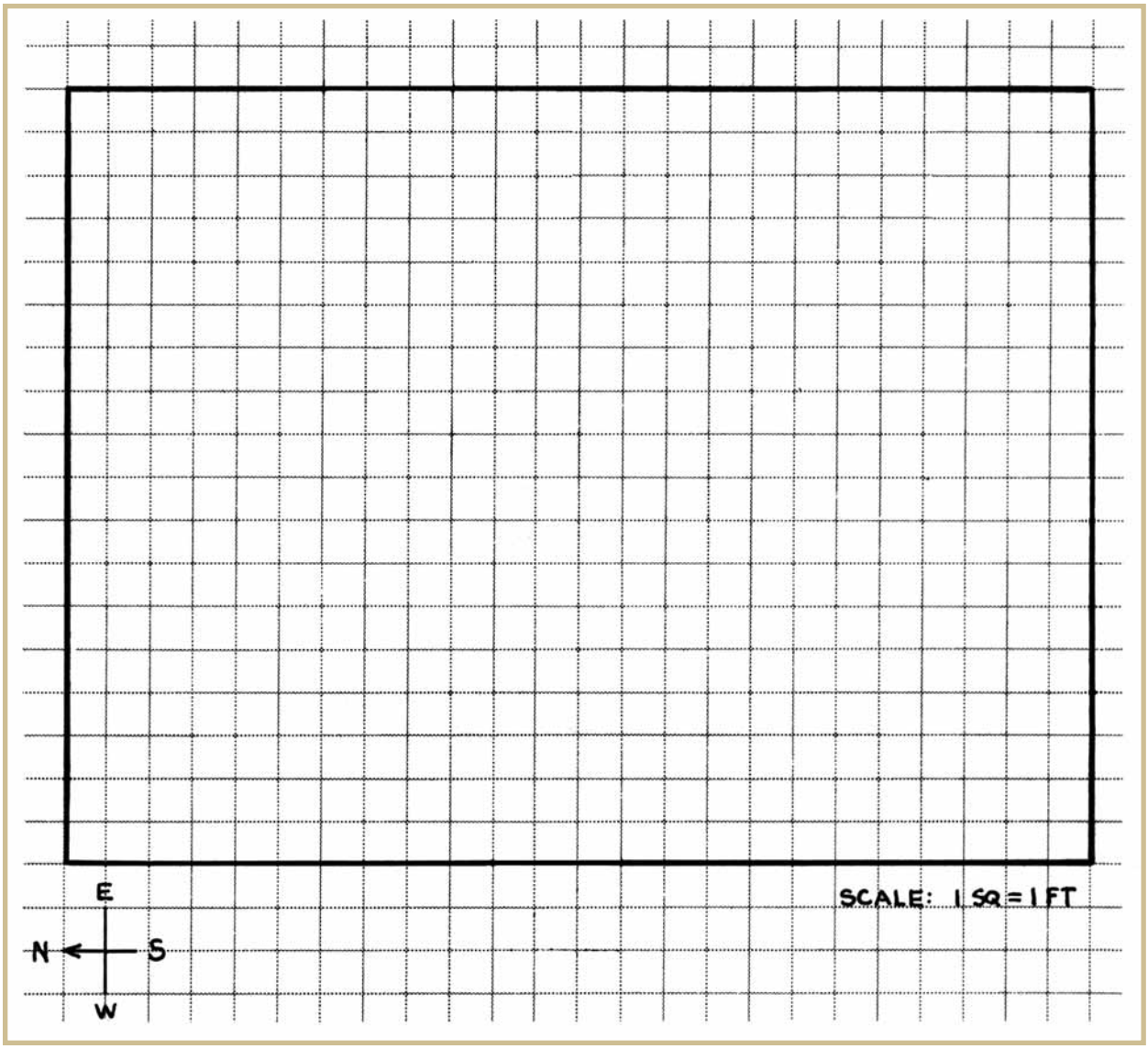


FIGURE 24—This drawing shows the overall dimensions of a room 24 ft × 18 ft, drawn to scale.

Use the same procedure to include your other measurements. For example, the door on the east wall is 6 ft from the northeast corner. To mark this door on the drawing, simply count off 6 squares and make a mark at the edge of the sixth square. This mark is the edge of the door opening. Since the door is 3 ft wide, count off 3 more squares from the mark you've just made and make another mark to indicate the other edge of the door.

Measure and mark all the other features of the room in the same way. The result is the scale drawing in Figure 25.

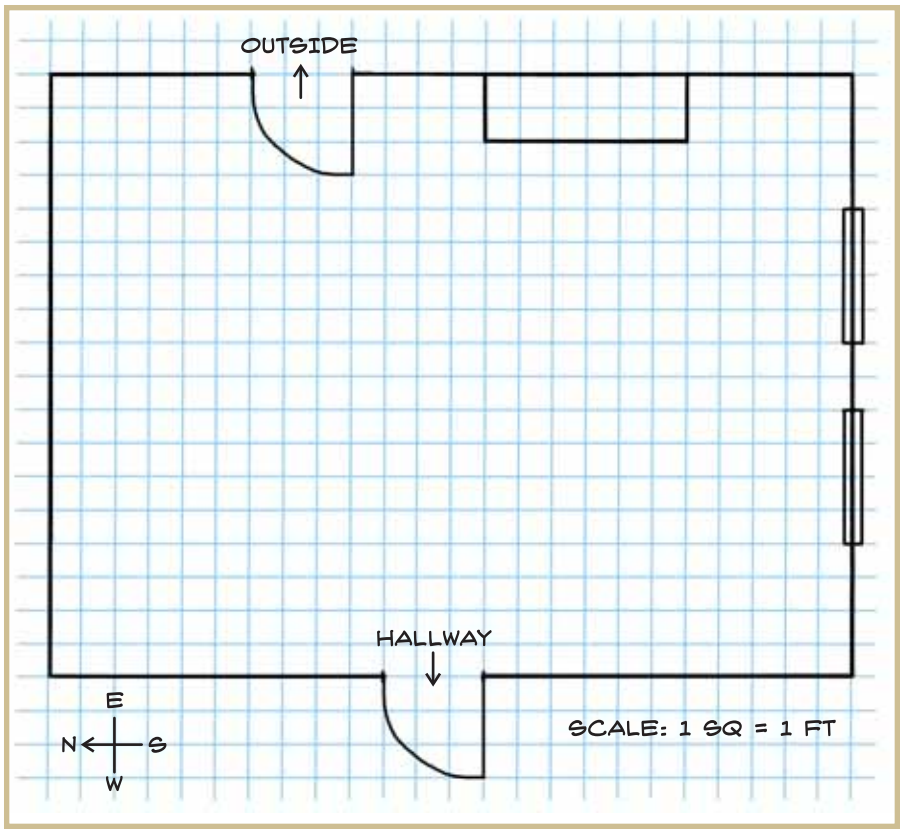


FIGURE 25—This illustration is a scale drawing of the rough sketch in Figure 22.

Measuring Inches on Graph Paper

Up to this point, all of the measurements we've dealt with have been in feet: 24 ft, 18 ft, 6 ft, 4 ft, and so on. However, in real life, you're going to run into measurements like 5 ft 3 in. How do you mark these measurements on graph paper with a scale of 1 square = 1 ft?

Since 1 whole square = 1 foot, you must count just part of a square to represent part of a foot, or inches. Suppose your floor is 10 ft 6 in. long. That's $10^{1}/_{2}$ ft. Therefore, you would count off $10^{1}/_{2}$ squares. Whatever number of inches your measurement includes, the inches represent some part of a square, just as they represent some part of a foot. Here are some examples of determining what part of the square that inches represent:

- 3 in. = $^{3}/_{12}$ ft, or $^{1}/_{4}$ ft

  Therefore, 3 in. = $^{1}/_{4}$ square

- 4 in. = $^{4}/_{12}$ ft, or $^{1}/_{3}$ ft

  Therefore, 4 in. = $^{1}/_{3}$ square

Since 1 square = 1 ft and 1 ft = 12 in., you would theoretically mark off 12 even spaces within 1 square to represent the 12 in. in a foot. However, since the square is fairly small, you really don't have room to make 12 marks side by side within the square. You must just indicate inches as closely as you reasonably can, as shown in Figure 26.

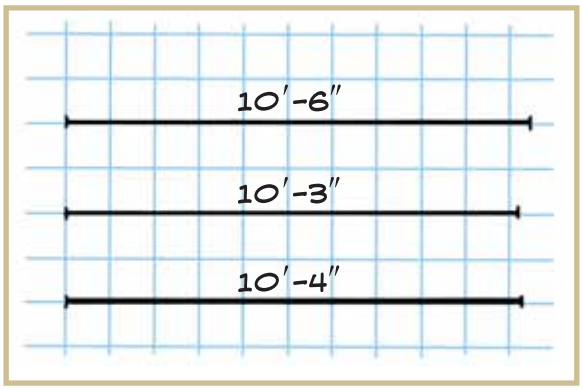


FIGURE 26—When $^{1}/_{4}$ in. represents 1 ft, there's not much visible difference between a few inches.

Using Tracing Paper with Graph Paper

When you've completed a basic plan on graph paper, you may want to make several copies of it so that you can try out various arrangements of furniture without having to erase one before trying another arrangement.

To avoid having to count off and redraw each time, place a sheet of tracing paper over the graph paper plan. Attach the tracing paper to the graph paper with drafting tape. Then, trace the basic sketch, using a straight-edged ruler. With the tracing paper still in position over the graph paper, you can use the squares of the graph paper as a rough guide for positioning furnishings.

Centering a Plan on Graph Paper

In some cases, you may want to center your scaled plan on a sheet of graph paper so it will look its best. Centering is necessary if others will be viewing the scaled plan. Here's an easy way to make a well-centered sketch:

1. Using a ruler or other straight-edged instrument, lightly draw an X from corner to corner across the whole sheet of graph paper. The point at which the lines of the X cross is the center of the paper. This point should also be the center point of any drawing centered on the paper. Half of your drawing will be made to the left of this point and half will be made to the right. Similarly, half of your drawing will be made above this point and half will be below.
2. If the cross of the X doesn't land exactly at the corner of a square, move your center dot to the nearest corner of a square.
3. Starting at the center point, count off half the total squares in the length of the room going left. Then, count off half the total squares going right from the center point. For example, if your room is 14 ft long, divide 14 by 2:

   $$14 \div 2 = 7$$

   Count 7 squares to the left from the center point and 7 squares to the right of the center point. The outer line of the furthermost square in each direction is the outside line of your floor plan. Make a small pencil mark there.
4. Divide the width measurement by 2 and count up and down from the center dot. If the width is 12 ft, divide 12 by 2:

   $$12 \div 2 = 6$$

   Count 6 squares up from the center dot and 6 squares down from the center dot, making a mark at those points.

5. Draw all four lines of the room outline where you've made your outer marks. Extend the lines until they touch. Now your room outline is perfectly centered on your sheet, as shown in Figure 27.

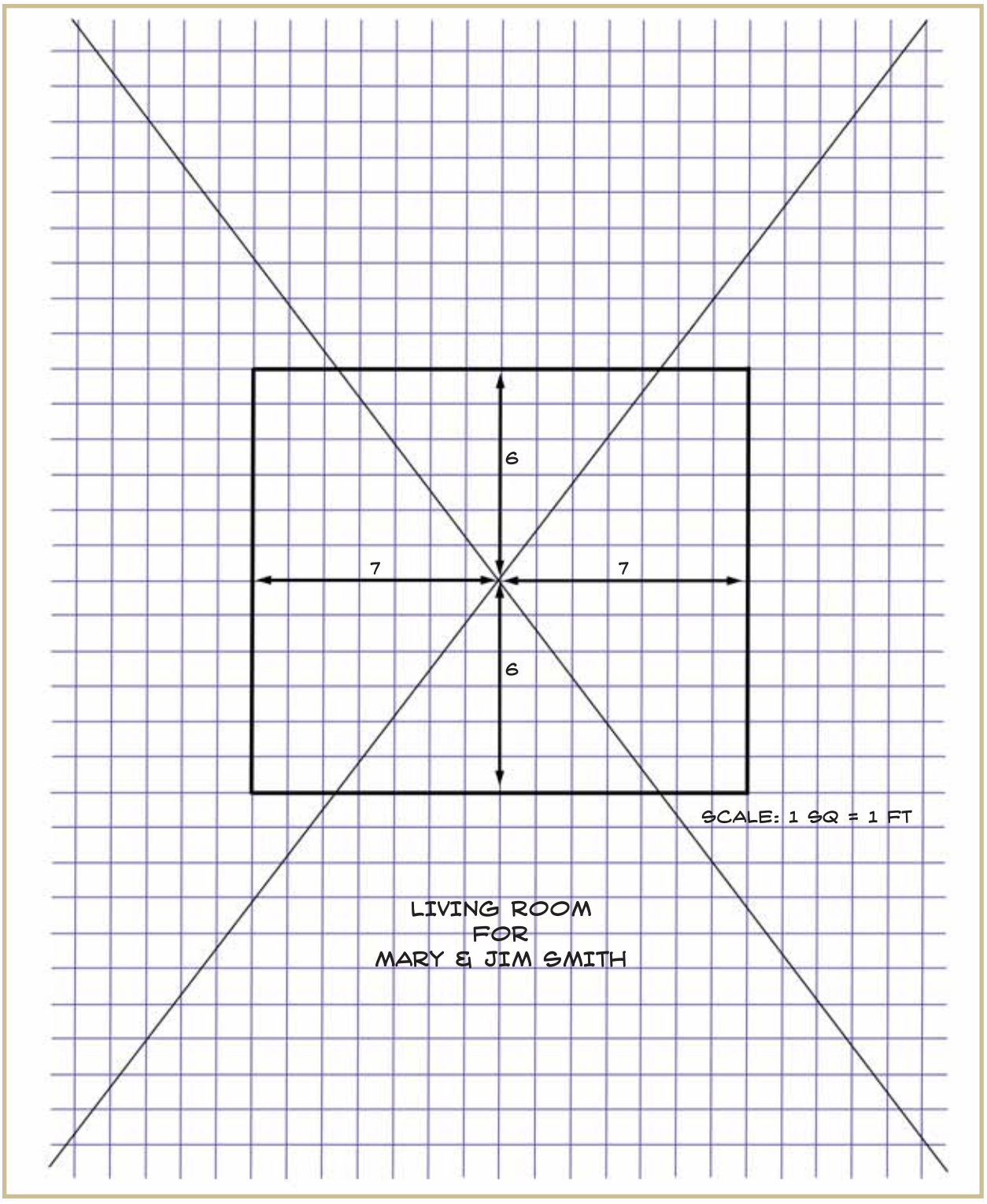


FIGURE 27—This 14 ft by 12 ft room is perfectly centered on a sheet of graph paper.

Complete your drawing by putting in the doors, windows, and any other features. Print a description under the floor plan, using the graph spaces as a guide to neat, even lettering. Adding the client's name to every plan makes it easier to keep track of your plans for your own convenience, and it makes for a much more professional and personal appearance to the client who might have occasion to see these preliminary plans.

Using a Graph Paper Plan

Analyzing Traffic Patterns

Study your basic floor plan as you consider these questions in relation to the entrances and exits to the room:

- Where do the doorways lead? The answer to this question will affect your choice of floor coverings for all or part of this room.
- Does any door lead directly to the outdoors? If so, it may be necessary to cover a small section of the floor near the door in a durable entryway material.
- How will traffic normally flow into and through the room?

Use one tracing paper copy of the floor plan to indicate traffic paths. Use dark, thick arrows to indicate a heavy traffic pattern and thin arrows for lighter traffic (Figure 28).

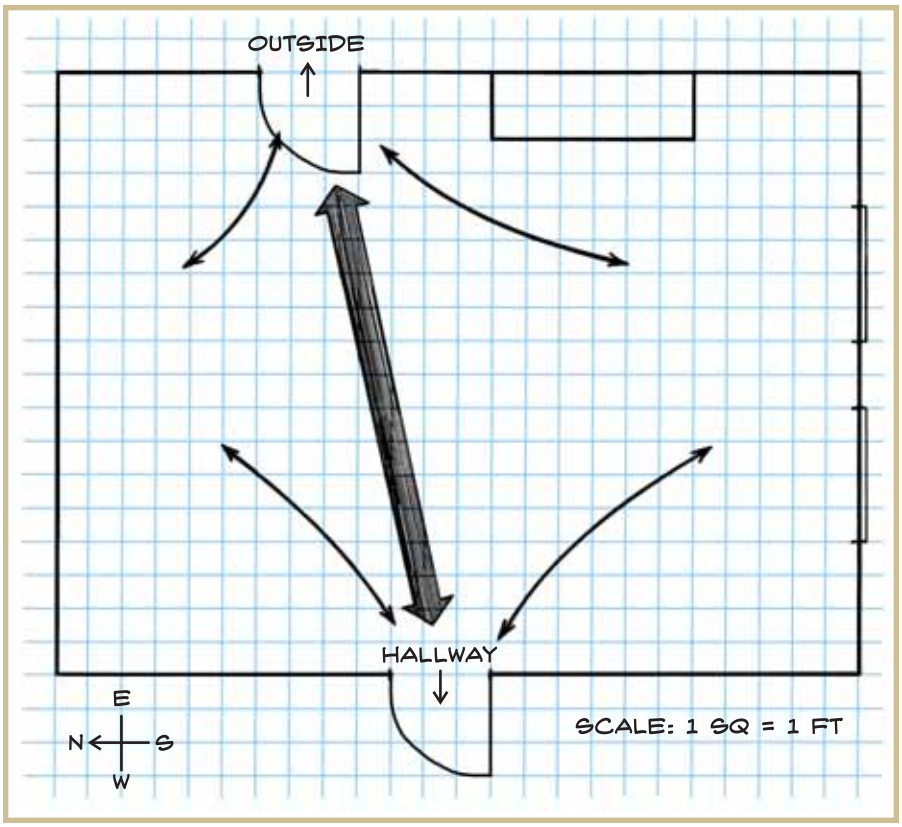


FIGURE 28—Use a tracing paper copy of a floor plan to show traffic patterns.

Planning for Floor Coverings

Your properly scaled floor plan enables you to try out sizes, shapes, and arrangements of various floor coverings to see how they would fit in relation to furniture pieces and placement of furniture.

Testing Furniture Arrangements

When your basic graph drawing is complete, you can use it to make properly scaled furniture arrangements. For example, if you want to position a sofa that's 7 ft long and $2^{1}/_{2}$ ft deep, you can use the graph squares to serve as your scale so that you can see exactly how and where the sofa will fit. Drawing in all your furnishings based on the scale of the floor plan will enable you to see exactly how items will fit.

Drawing Tools

You've already learned how to use tracing paper to put a scaled drawing onto plain paper. Tracing is a quick, suitable method to use when you already have a detailed scale drawing on graph paper and you want to make copies or get a look at the drawing without the grid pattern.

Using this method of tracing paper to get a scale drawing onto plain paper has two disadvantages: First, you must make a drawing on graph paper before you can transfer it to tracing paper. Second, you must place the tracing paper over a sheet of plain opaque paper so that the drawing shows up clearly. Therefore, for those cases where all you want is a scale drawing on plain paper, wouldn't it be best to make a scale drawing directly on plain opaque paper?

Before you learn how to do just that, you must understand how to use the necessary tools. Three tools can greatly help you to create near perfect scaled drawings on plain paper: a scale ruler, a T square, and a triangle. We'll examine each one of these tools and explain how to use them.

Scale Ruler

Because your scaled drawings are in a scale of $^1/_4$ in. = 1 ft., it would be handy to have a ruler with $^1/_4$ in. markings. Since an ordinary 12 in. ruler has $^1/_4$ in. markings, you could use it as your guide in drawing lines to a $^1/_4$ in. scale, but you would have to count off each foot or do a little mental arithmetic.

Every inch on a standard ruler is marked off into quarter inches, and each inch contains four quarters. Therefore, every inch on a ruler represents 4 ft in a $^1/_4$ in. scale. Suppose the room you're drawing is 16 ft long. How long would you have to draw a line to represent 16 ft? Since each inch represents 4 ft, you would draw the line 4 in. long (16 ft ÷ 4 = 4).

Because the math can become somewhat complicated when you deal in odd sizes, such as 15 ft 9 in., the *scale ruler* was developed to make drawing to scale much easier.

A scale ruler usually has more than one scale printed on it. For example, the ruler in Figure 29 has two scales. Notice that it has the imprint "1/4 inch = 1 foot" and "1/2 inch = 1 foot." The ruler has two sets of numbers, one set along each edge. In the ruler pictured in Figure 29, the 1/4 in. scale is at the left. The short lines along the bottom edge of the ruler are spaced at 1/4 in. intervals just like the lines on your graph paper. The numbers read 0, 2, 4, 6, and so on. These numbers, which represent feet, are there to help you scale a room plan quickly and easily. For example, if a wall is 16 feet long, you simply draw a line from 0 to 16. That's it! There's no need to count off each 1/4 in. If a wall is, say, 17 ft long, or any other any other odd number, look for the even number right before it (in this case, 16) and then count one mark beyond the even number.

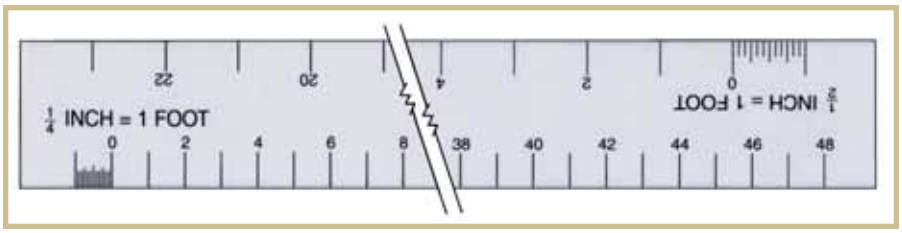


FIGURE 29—A scale ruler usually has more than one scale. This ruler has two scales: 1/4 inch = 1 foot and 1/2 inch = 1 foot.

Since you've already had experience counting off graph paper squares, you can readily see how easy the scale ruler makes it to draw scaled lines.

Whenever you use a scale ruler, *always remember to start measuring from 0 instead of from the edge of the ruler as you would with a standard ruler.* See Figure 30. Since most of us are accustomed to using ordinary rulers, and the experience of using the scale ruler is new, we must watch out for that old habit of measuring from the end of the ruler. Enough practice using the scale ruler will accustom you to starting at 0 when drawing a scaled line. If you ever do find that your lines are running 2 ft too long, it's probably because you started measuring your line from the end of the ruler instead of from 0.

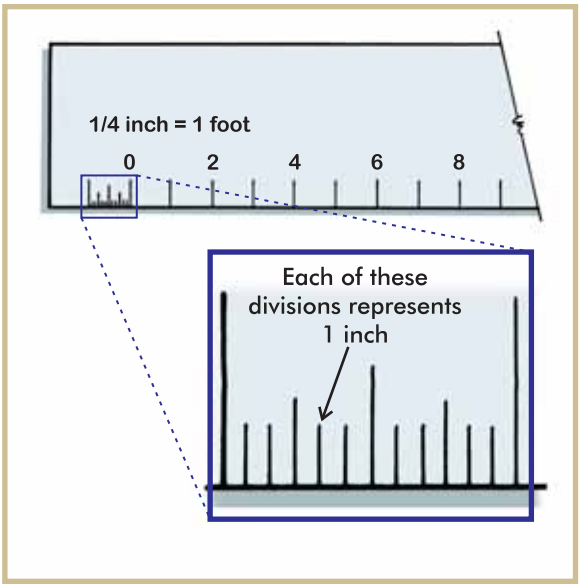


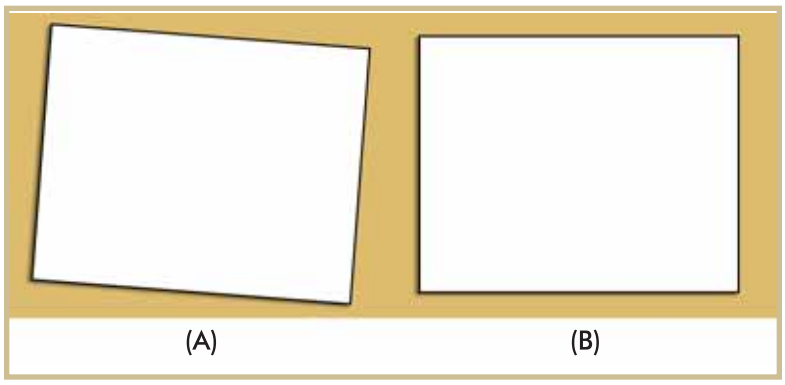
FIGURE 30—Always begin your measurements from 0. To the left of 0 is a quarter-inch space marked off into 12 sections, as shown in the enlarged section. Use these markings to measure inches on a drawing.

You must start measuring from 0 because a scale ruler has an added feature at the left end of the scale. In the area just to the left of 0, the scaled "foot" is marked off into 12 scaled inches. When you must measure a line that includes inches, such as 10 ft 6 in., just draw the line to the correct number of whole feet and then use the inches scale to measure the number of inches, as pictured in the blowup in Figure 30.

It's difficult to space 12 marks accurately within $^{1}/_{4}$ in. A pen or pencil mark may be as wide as two of those marks, but that will seldom make much difference in a $^{1}/_{4}$ in. scale drawing.

Now, what would happen if you used a scale ruler to draw a rectangular room to scale? Chances are your drawing would be fairly good, as shown in Figure 31A, but fairly good isn't good enough. For truly accurate scale drawings and for professionally finished client presentation drawings, you must make your rectangle exactly right, as shown in Figure 31B. To make the drawing exactly right, you must use both a T square and a triangle, along with the scale ruler.

FIGURE 31—The rectangle in view A was drawn with a scale ruler. Although it's fairly good, your professional drawings must be exactly right, as shown in view B.



T Square

The purpose of a T square (Figure 32A) is to help you to make a straight line that's also in a straight position on the paper—that is, it's parallel to the edge of the paper. If you run your fingers along the underside of a T square at the point where the short bar meets the long bar, you'll find a ridge, as shown in Figure 32B, because the short bar is thicker than the long straight edge. The ridge is there so the short bar can be butted evenly against the edge of a sheet of paper with the ridge holding it in place. Always use the T square with the ridge side down.

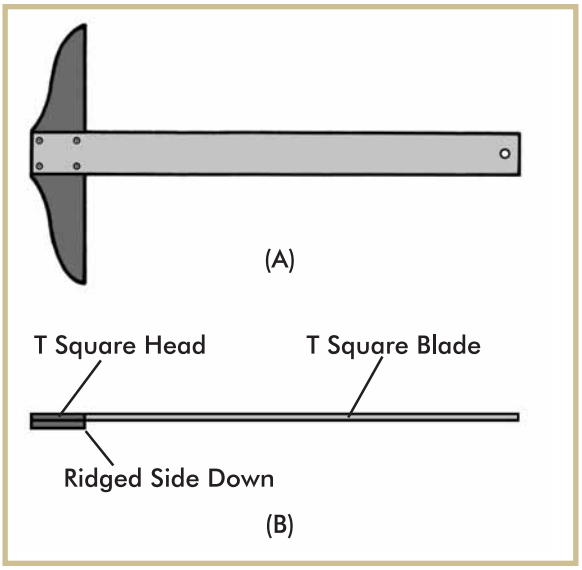


FIGURE 32—View A illustrates a standard T square. View B illustrates a side view, showing the ridge on the bottom of the T square.

Use this procedure to help you practice using a T square:

1. Place the ridge side of the T square down and butt the T square firmly against the edge of your table or desk.
2. Place a sheet of plain paper on your desk or tabletop, and align the bottom edge of the paper with the long bar of the T square. Affix each corner of the paper to the table with small pieces of drafting tape or other tape. Drafting tape won't mar either the tabletop or the paper. It will simply keep your paper from sliding around.
3. Draw a straight line across the paper (Figure 33).
4. Slide the T square down the sheet of paper about an inch. Be sure the ridge remains evenly butted against the edge of the desk or table. Draw another line (Figure 34).
5. Again slide the T square farther down the paper. Check to see that the ridge is butted evenly against the edge of the desk or table, and draw another straight line (Figure 35).

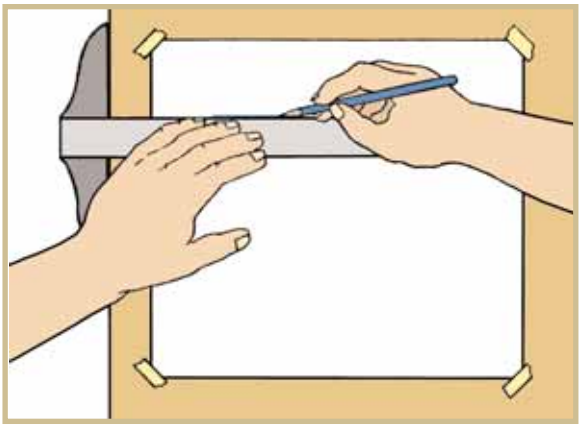


FIGURE 33—Hold the T square firmly against the edge of your desk or table as you draw a straight line.

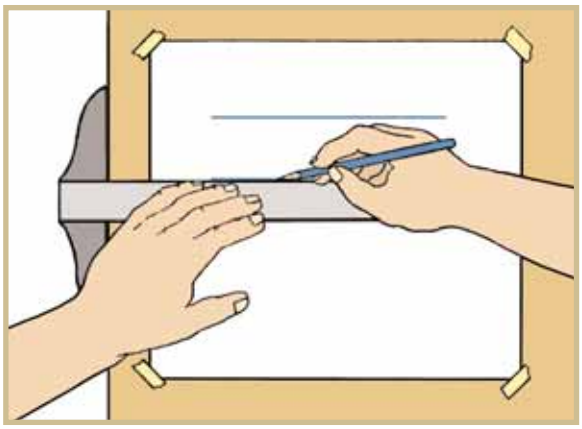


FIGURE 34—Slide the T square down an inch or so and draw a second line.

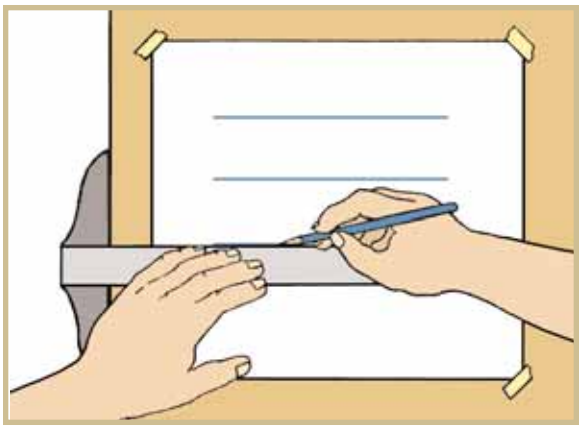
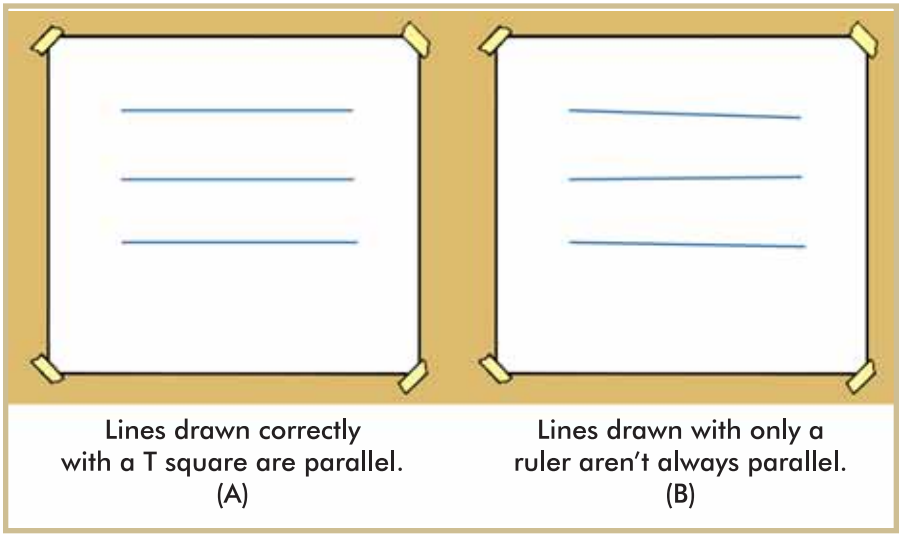


FIGURE 35—Slide the T square down again and draw a third line.

6. Look at the two papers in Figure 36. The lines drawn with a T square, view A, are parallel. The lines drawn with only a ruler, as in view B, aren't always parallel.

FIGURE 36—Lines drawn with a T square are parallel. Lines drawn with a ruler tend to be out of alignment.



Triangle

You've just used a T square to draw parallel horizontal lines. A triangle can help you easily draw vertical lines so that you create a perfect rectangle. Let's try it.

1. Position the T square at the edge of your desk or table. Align a sheet of paper with the long bar of the T square as you did before. Tape the paper to your drawing surface.

2. Draw a line across the paper as you did before. Slide the T square down about 3 in. and draw another line (Figure 37).
3. Slide the T square down again so it's slightly below the lower line. Hold the T square in this position.
4. With your free hand, place the triangle against the T square, as shown in Figure 38. The bottom side of the triangle should sit flat against the T square.
5. Draw a line along the upright left edge of the triangle, extending it from one of the horizontal lines to the other (Figure 39). As you draw this line, hold the T square and the triangle securely in position.
6. As you continue to hold the T square in place, slide the triangle about 4 in. to the right along the edge of the T square. Draw another line along the upright left edge of the triangle, extending it from one horizontal line to the other (Figure 40).

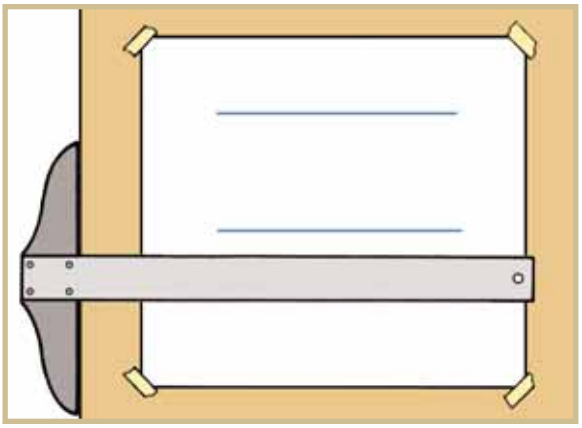


FIGURE 37—Use your T square to draw two parallel lines on a clean sheet of paper.

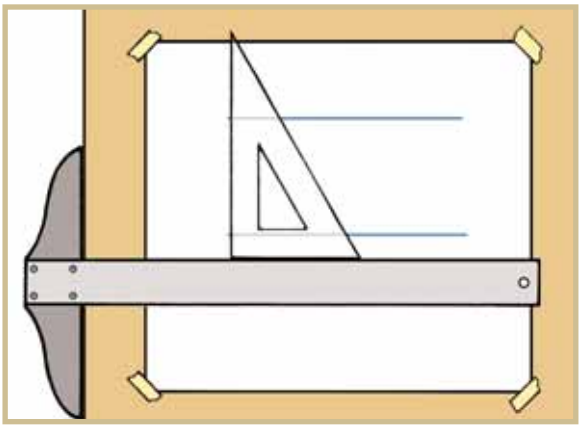


FIGURE 38—Position the T square and triangle as shown in this illustration.

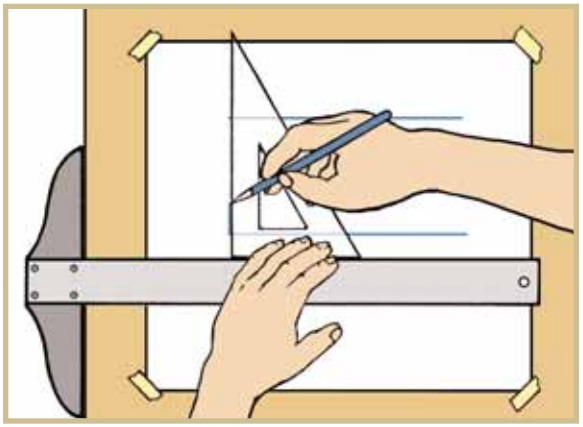


FIGURE 39—Hold the T square and triangle in position as you draw the first vertical line.

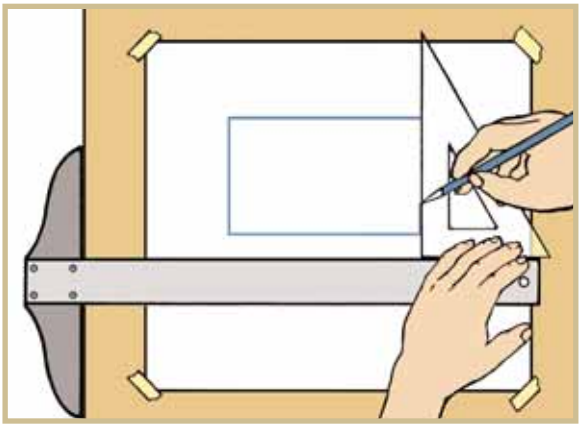


FIGURE 40—Slide the triangle to the right. As you hold the T square and triangle in position, draw a second line from one horizontal line to the other.

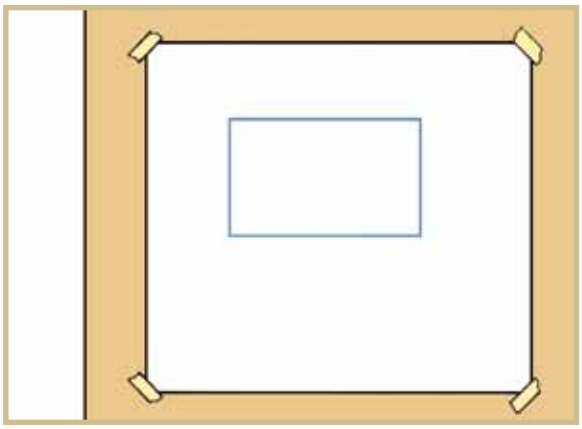


FIGURE 41—If you follow the procedure outlined here, you should produce a perfect rectangle.

7. Remove the T square and triangle from the paper and admire your handiwork! If you've followed directions, you've made a perfectly formed rectangle, with its opposite sides parallel and all its angles exactly the same size (Figure 41). And it was easy, wasn't it?

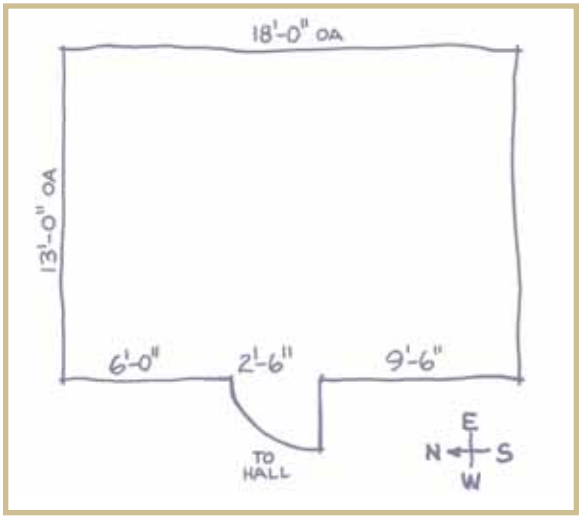
Practice using a scale ruler, T square, and triangle until you feel comfortable with the tools. Then move on to the next section and put your skills into practice by drawing a floor plan.

Drawing a Scaled Plan on Plain Paper

In this section, you'll learn how to use a scale ruler, a T square, and a triangle to create a floor plan. Let's say the drawing in Figure 42 is the rough sketch you brought back from your client's home. To turn this sketch into a finished drawing, follow this procedure:

1. Position the T square at the edge of your desk or table. Align a fresh sheet of paper with the long bar of the T square as you did before. Tape the paper to your drawing surface.

FIGURE 42—Rough Sketch



2. Using your T square, lightly draw a line across the paper, as shown in Figure 43.

3. According to the rough sketch, the room you're drawing is 18 ft long. Place the 1/4 in. scale ruler against the line. To mark off 18 ft, make a mark at 0 and another mark at 18 (Figure 44). (*Remember:* Always start measuring a line at 0.)

4. Return the T square to its original position against the line. Place the triangle in position against the T square so that the long straight edge is at one of the marks (either 0 or 18), as shown in Figure 45. Draw a line along the vertical side of the triangle.

5. Slide the triangle to the next mark and draw that line, as shown in Figure 46. You may place a triangle so that its diagonal line is either to the left or right of its straight line, whichever is more comfortable for you. Then, draw the second vertical line.

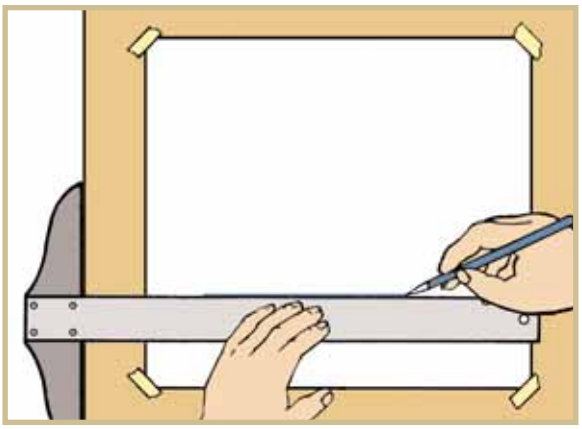


FIGURE 43—Use a T square to draw a light line across the lower part of the paper.

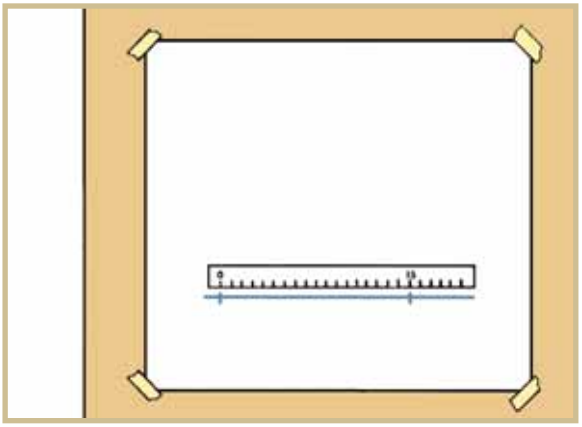


FIGURE 44—Make a mark at 0 and a mark at 18.

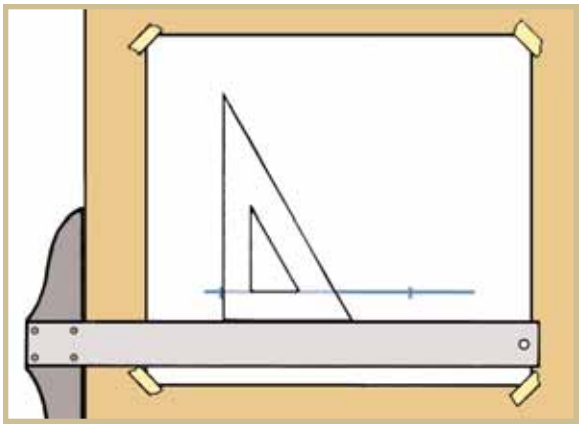


FIGURE 45—Position the triangle to draw the first vertical side of the rectangle.

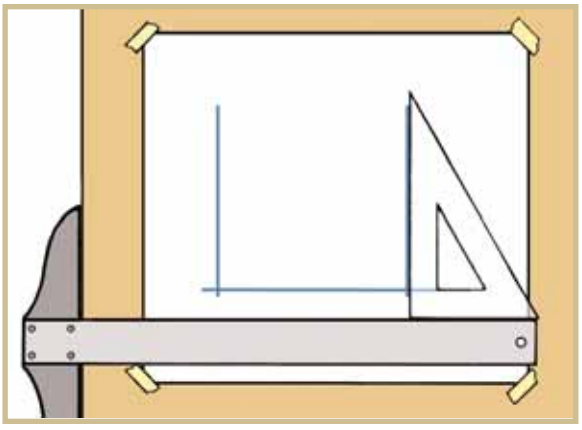


FIGURE 46—Use the triangle to draw the second vertical line.

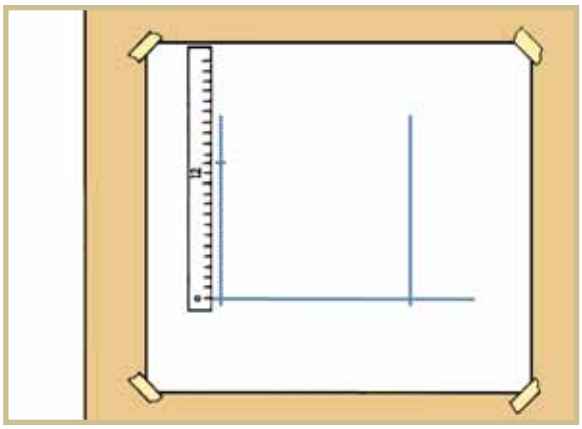


FIGURE 47—Measure 13 ft on both vertical lines.

6. Use your scale ruler to measure the 13 ft wall. Place the 0 on the scale ruler on the lower line, and make a mark at 13 ft on one of the vertical lines (Figure 47). Make the same measurement on the second vertical line.
7. Slide your T square into position at the 13 ft marks and draw the fourth side of the room.
8. Remove your T square from the paper. Your outline is complete, as shown in Figure 48.
9. Now that you have the overall dimensions drawn, add the door in the west wall of your rough sketch. The door is 6 ft from the northwest corner. Use your scale ruler to measure off 6 ft from the northwest corner along the west wall. (Remember to start measuring from 0 on your scale ruler.) Make a mark at 6 ft, as shown in Figure 49. This mark indicates where the door begins. You now have to mark the width of the door, which according to the rough sketch (Figure 42) is 2′–6″.

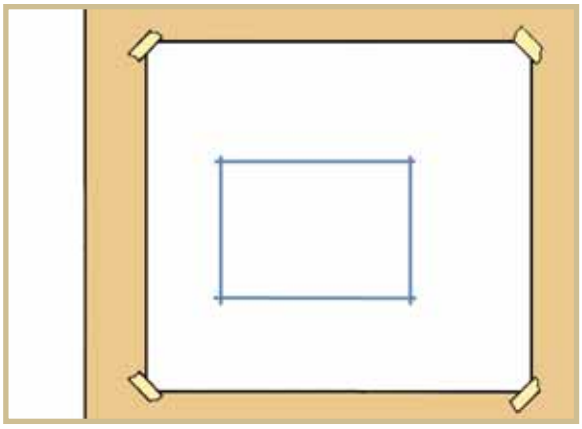


FIGURE 48—Use your T square to draw the top 18 ft line.

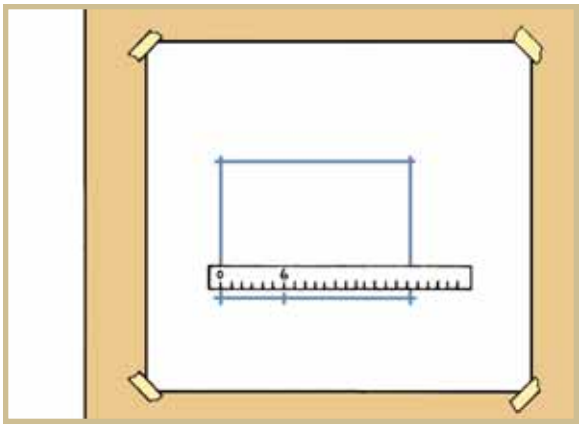


FIGURE 49—Measure 6 ft from the northwest corner and make a mark.

10. Measure 2 ft from the 6 ft mark and make a light mark there. Move your scale ruler over so that the inches scale to the left of 0 lines up with the light mark you just made at 2 ft. Measure off 6 in. and make a mark to indicate the other end of the doorway at 2′–6″.
11. Draw the symbol for the doorway and indicate which way the door opens.
12. Enter the compass direction, and you've turned your rough sketch into a perfectly scaled drawing on plain paper (Figure 50).

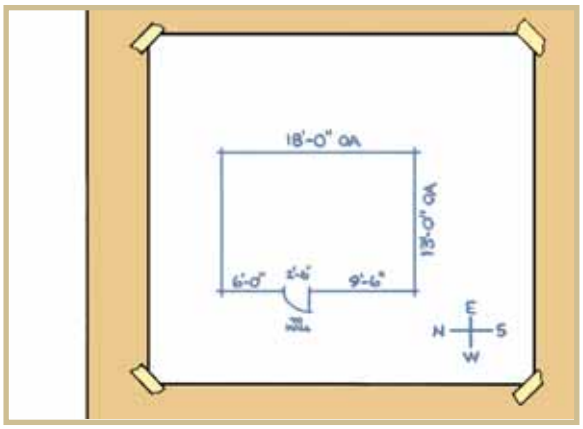


FIGURE 50—With a T square, a scale ruler, and a triangle, you've created a perfectly scaled drawing on plain paper.

You have two options for determining measurements that consist of both feet and inches. For the first method, place the 0 on the scale ruler at the start of the measurement. Make a light temporary mark at the appropriate number of feet. Then, slide the ruler over until the start of the inches scale is at the temporary mark. Add the correct number of inches. To measure 2′–6″ using this method, see Figure 51A.

For the second method, place the scale ruler so the correct number of inches lines up with the starting point. Then, measure over to the correct number of feet. To measure 2′–6″ using this method, see Figure 51B.

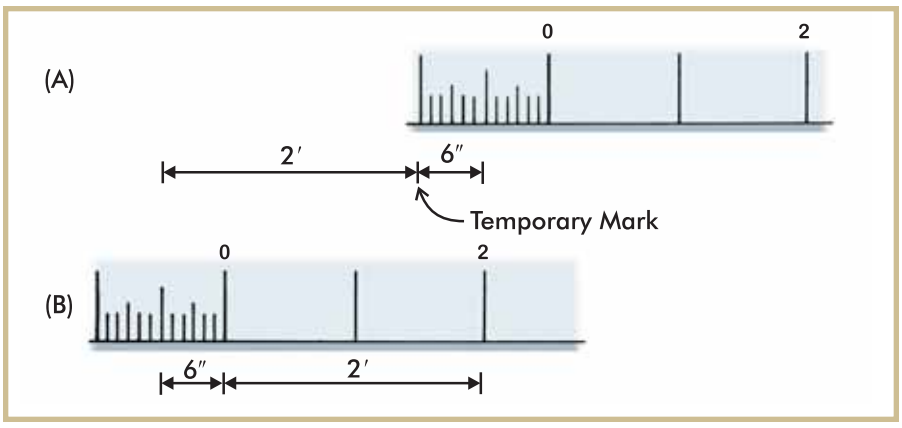


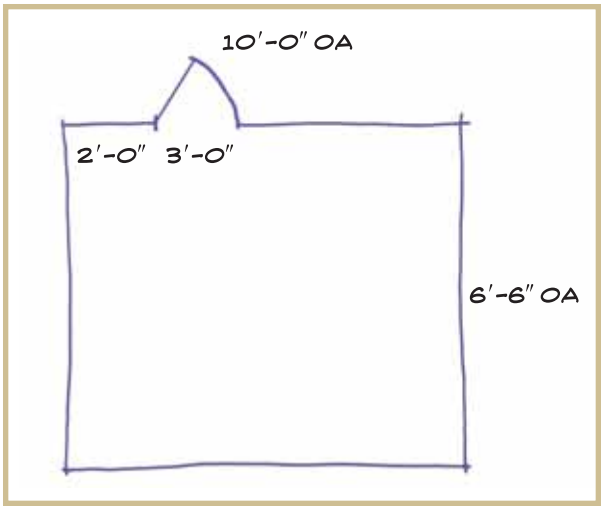
FIGURE 51—Two Methods to Indicate Measurements with Both Feet and Inches

You've just studied a very important part of the job of an interior decorator—that is, drawing scale floor plans. In the next section, you'll learn how to position furniture on the floor plans that you draw. First, however, practice what you've just learned by completing *Self-Check 2*.

Self-Check 2

1. Using a 1/4 in. scale ruler, make lines for the following lengths:
   a. 4 ft
   b. 2 ft 6 in.
   c. 5 ft 4 in.

2. Using a scale ruler, a T square, and a triangle, make a 1/4 in. scaled drawing on tracing paper of the rough sketch shown in the figure below.



3. Using a scale of one square = 1 ft, draw an outline of a floor that's 12 ft × 18 ft. Use the 18 ft side as the horizontal line.

4. On the floor plan you drew for item 3, add a 2 1/2 ft door opening. Locate the door 5 ft from the upper left corner on the 18 ft wall. The door hinges on the right and opens into the room. (Make sure you use the door symbol shown in Figure 23.)

Check your answers with those on page 99.

POSITIONING FURNITURE ON A FLOOR PLAN

Drafting Templates

Once you've drawn a floor plan, you're ready to plan the furniture arrangement. For drawing furniture shapes onto a floor plan, you'll need some sort of guide—at least for the most common sizes and shapes. A handy device for guiding your drawings is a *template* like the one in Figure 52. A template is a plastic form with cutouts in the shape of various pieces of furniture drawn to scale. The scale is printed somewhere on the template. Of course, the scale on the template should be the same as the scale of the floor plan.

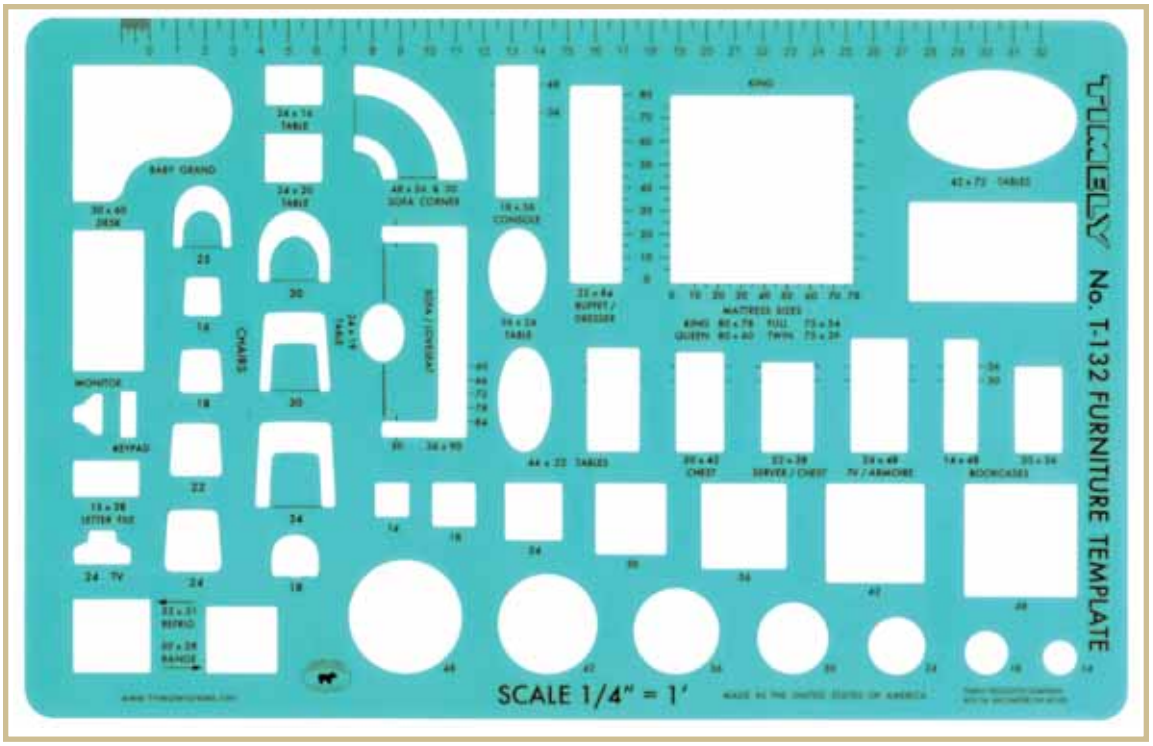


FIGURE 52—The furniture pieces on this template have been drawn to a 1/4 in. scale.

To use a template, select the piece you want to position on a floor plan. Place the cutout for that piece in the correct position on the plan, and trace around the piece in the template.

Make sure the template and the floor plan have the same scale.

Under each piece on a template are its designated dimensions and identification. For example, the template in Figure 52 has three different-size sofas (34″ × 108″, 34″ × 84″, and 34″ × 72″). These three sections represent sofas of those sizes drawn to a 1/4 in. scale. If you're working with existing furniture, measure each piece and then find the cutouts on the template that match the shape and size you need.

While most of the measurements for furniture are given in inches (″), you can easily convert the English measurements to metric. See Table 1.

Table 1

METRIC CONVERSION CHART

Length

When You Know	Multiply by	To Find
Inches (in., or ″)	2.54	Centimeters (cm)
Feet (ft, or ′)	30	Centimeters (cm)
Yards (yd)	0.9	Meters (m)

Area

When You Know	Multiply by	To Find
Square inches ($in.^2$)	6.5	Square centimeters (cm^2)
Square feet (ft^2)	0.09	Square meters (m^2)
Square yards (yd^2)	0.8	Square meters (m^2)

Note: In this study unit, each metric equivalent listed has been rounded to the nearest whole number.

Making Your Own Measurements

Some furniture that your client has or that you intend to purchase may not be represented on your template or in a chart of standard sizes. Therefore, you'll need to make your own measurements and scaled drawings. Calculate the scaled size for each piece to match the scale of your floor plan.

To determine the size of the cutout, you must first determine the shape and size of the piece of furniture *as seen directly from above*. Therefore, you must consider only the width and the depth of a piece. The height isn't represented on a floor plan. For example, the sofa in Figure 53 is 96″ (244 cm) wide, 35″ (90 cm) deep and 29″ (74 cm) high. The only dimensions you need for the cutout are the width and the depth. Use your scale ruler to draw this size. *Note:* To convert inches to feet, simply divide the number of inches by 12. The width of 96″ is the same as 8′ (96 ÷ 12). The depth of 35″ is the same as 2′11″.

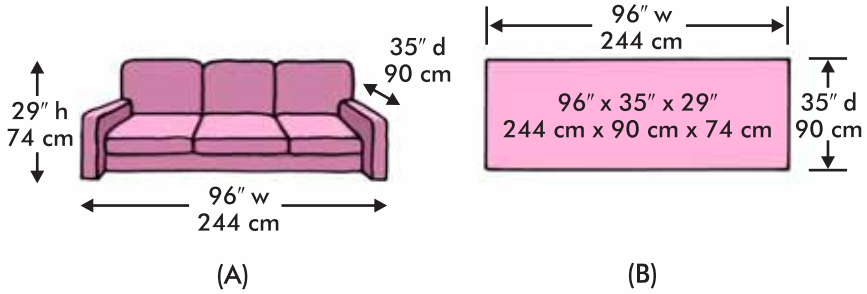
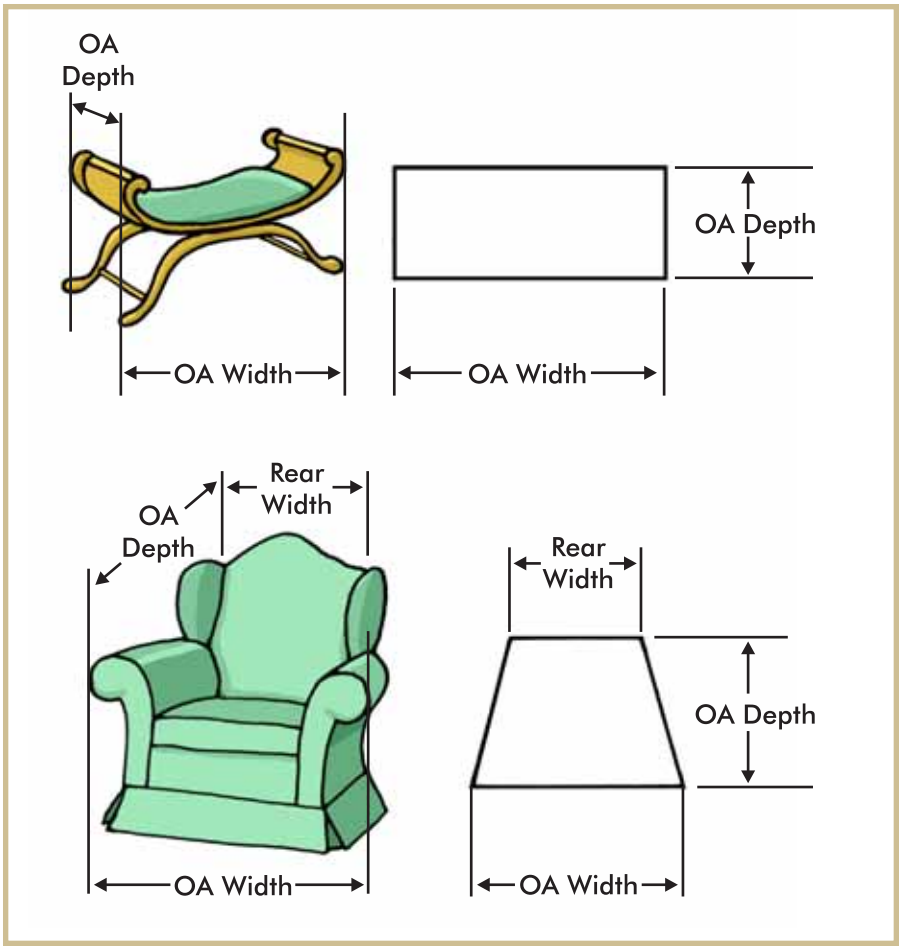


FIGURE 53—To make a scale drawing for this sofa, you must calculate its width and its depth.

Figure 54 shows two pieces of irregularly shaped furniture. Not all furniture shapes are as easily visualized from above as is the shape of a common sofa. The irregularity of some shapes may make drawing them seem a little puzzling at first. However, if you start by marking off the widest and longest overall dimensions, it's easy to successfully outline any piece of furniture. In Figure 54, note that the overall (OA) dimensions of the furniture items are used to create the drawings. To lay out the furniture on a floor plan, you need to know how much space each piece will occupy overall. Therefore, you need to make only straight-line measurements. However, you may later want the actual measurements of a piece for calculating upholstery or covering requirements. So, to avoid any confusion, always clearly mark an overall measurement with an OA.

FIGURE 54—Overall dimensions are used to create scaled drawings.



If you find that you frequently use certain pieces that have unusual sizes, make up your own stencil for them to avoid having to scale them down and draw them each time you use them in a floor plan. All you need for making a template of furniture pieces is a piece of stiff cardboard, a pen, your scale ruler, and a precision knife. Draw the shapes to scale onto the cardboard. Leave at least 1/4 in. (0.6 cm) between the pieces. Then, write the size and description both on the shape and directly below it on the template sheet. Use a precision knife to cut the pieces out of the template.

Table 2 shows the typical ranges of widths and depths for a number of commonly used furnishings. You can use these standard measurements as estimates while planning furniture arrangements.

Table 2		
STANDARD FURNITURE MEASUREMENTS		
Furniture Item	**Range of Standard Widths**	**Range of Standard Depths**
Sofa	6′0″ to 9′0″ (180 cm to 270 cm)	2′6″ to 3′0″ (75 cm to 90 cm)
Love seat	4′0″ to 5′0″ (120 cm to 150 cm)	2′6″ to 3′0″ (75 cm to 90 cm)
Occasional chair	2′0″ (60 cm)	1′6″ to 2′0″ (45 cm to 60 cm)
Upholstered armchair	2′4″ to 3′3″ (70 cm to 98 cm)	2′6″ to 3′4″ (75 cm to 100 cm)
Coffee table	2′0″ to 5′0″ (60 cm to 150 cm)	1′6″ to 3′0″ (45 cm to 90 cm)
End table	0′10″ to 1′8″ (25 cm to 50 cm)	1′6″ to 3′0″ (45 cm to 90 cm)
Card table	2′6″ to 3′0″ (75 cm to 90 cm)	2′6″ to 3′0″ (75 cm to 90 cm)
Bookshelf	2′6″ (75 cm) to any width	0′7″ to 1′0″ (18 cm to 30 cm)
Desk	2′8″ to 6′0″ (80 cm to 180 cm)	1′6″ to 3′0″ (45 cm to 90 cm)
Dining room table	2′6″ to 8′0″ (75 cm to 240 cm)	2′6″ to 5′0″ (75 cm to 150 cm)
Dining room chairs	1′4″ to 2′0″ (40 cm to 60 cm)	1′4″ to 2′0″ (40 cm to 60 cm)
Buffet	4′0″ to 6′0″ (120 cm to 180 cm)	1′8″ to 2′0″ (50 cm to 60 cm)
China cabinet	3′0″ to 4′0″ (90 cm to 120 cm)	1′6″ to 1′8″ (45 cm to 50 cm)
Dresser	2′6″ to 5′0″ (75 cm to 150 cm)	1′6″ to 1′9″ (45 cm 53 cm)
Nightstand	1′3″ to 2′0″ (35 cm to 60 cm)	1′0″ to 2′0″ (30 cm to 60 cm)
Note: Standard mattress sizes for bed measurements are listed in Table 4.		

Magnetic Furniture Kits

In addition to templates, you can use magnetic furniture template kits. These kits are fun to work with and they're easy to use. They consist of a flat magnetic sheet marked in a grid and magnetic pieces that represent furniture.

To use a magnetic furniture template kit, you must first outline the room on the scaled grid. Some kits allow you to use dry-erase markers; others come with magnetic strips that you can use to represent walls. Once you have the outline of the room, simply move and place the magnetic furniture shapes until you determine the best furniture arrangement.

Using a magnetic furniture kit allows you to immediately see the possibilities of furniture placement. Once you've determined the best arrangement, you can photocopy the layout onto your letterhead for a presentation to your client.

Selecting Furniture for a Small Space

The best furniture choices in a small living space are small pieces with an open design. If you pair a large sectional sofa, with hidden legs, with one solid coffee table, the room will shrink before your eyes.

Instead, try a love seat with exposed legs, so the light will shine through beneath the seat, opening up a little more space. Pair it with smaller side chairs and perhaps a few small Asian chests instead of a big coffee table.

Sample Furniture Arrangements

Visual Weight

Have you ever walked into a room that seemed to tilt toward one side even though the floor was perfectly level? Perhaps you've had to correct this problem in some rooms of your own home. The problem is one of *visual weight.* Our eyes assign a greater weight value to objects that are large and have a high degree of tone or color contrast. Small objects or objects with little contrast seem to weigh less. Carefully preparing the floor plan can help you to achieve visual balance in a room.

Even in an empty room, some areas may appear heavier than others because of the architectural features in those areas. For example, a fireplace, a doorway, a window, a built-in bookshelf, or a darkly paneled wall looks heavier than the unbroken expanse of a wall in a pale color. In a similar way, a dramatic window treatment can look heavier than a subdued window treatment.

When planning the placement of furniture in a room, keep in mind the visual weight of the parts of the room and of the furniture pieces. Place large pieces and the groups with large pieces first. Then, fill in the room with smaller furniture pieces, selecting and placing each one selected to balance with all of the others.

Focal Point

As you arrange furniture pieces to create visual balance, you'll also be looking for a place to establish a focal point, or center of interest. The focal point can be a structural element (such as a fireplace), or a tall piece of furniture, or even a wall treatment (like a floor-to-ceiling painting or wall mural). After choosing the focal point, plan to direct attention to it by strategically placing the furnishings.

Now, let's take a look at some furniture arrangements on actual floor plans.

Considering Best Use

The illustrations in Figure 55 show how you can move shapes about on a floor plan when deciding where best to place furniture. The symbol ⊕ indicates a lamp. The symbol can be drawn on top of another shape to indicate that a lamp is sitting on that object. The other shapes in the illustrations should be recognizable as overhead views of the furnishings they're intended to represent. As you look at each illustration, think about the best arrangement in terms of focal point and balanced visual weight.

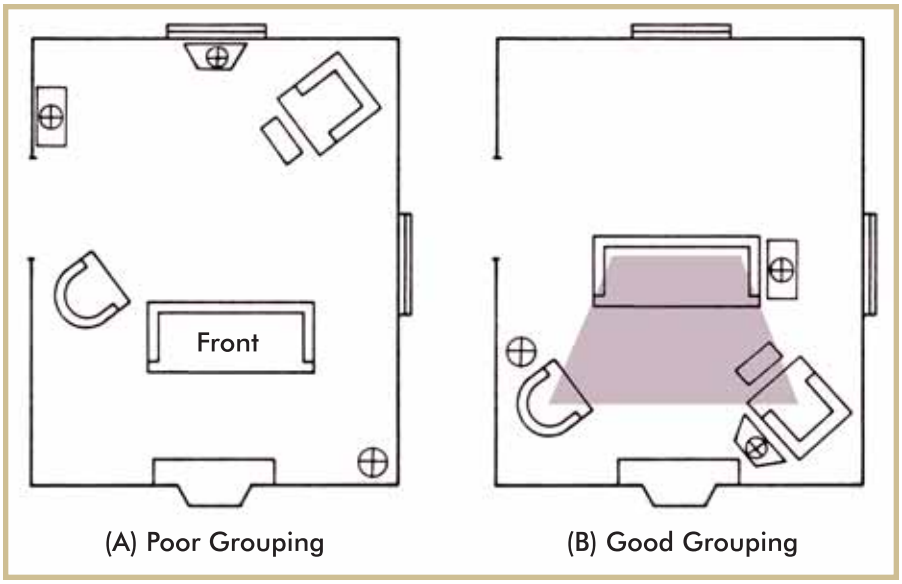


FIGURE 55—Consider the best way to use the furnishings you have available. The arrangement in view A doesn't put the furnishings to the best use. As a result, the room lacks a definite focal point. By properly grouping the furnishings, as shown in view B, you can create a focal point (the shaded area) for the room.

If a room was designed according to the plan in Figure 55A, people seated on the sofa wouldn't be able to converse easily with those in the chairs. While the furnishings seem dispersed fairly evenly throughout the room, they aren't properly assembled into a grouping for best use. As a result, the arrangement seems disheveled, and the room lacks a definite focal point. On the other hand, the same furnishings in Figure 55B provide a good grouping. All seated people would be able to talk easily with one another within this conversational grouping. Even the lamps have been repositioned logically to provide light where it's needed. The arrangement in Figure 55B thus represents the best use of the pieces.

Thinking outside the Box

Don't limit yourself to the more predictable uses for anything, especially when it comes to decorating. Everyone is an individual with individual needs. It's far better to make a living space work for the individual than to suit the norm.

For example, an entrepreneur who works at home and loves to entertain in her open kitchen may have no use for a formal dining room. She would be far better off to move office furniture into that space. A couple without children in a four-bedroom house will need to come up with creative uses for the extra rooms. One guest room is all most people really need. What will they do with the other two rooms? Your clients will have already thought of the standard choices. That's what everyone thinks of first. If you can offer them creative solutions—outside the box—you'll be adding value to your services, even if they opt for a more routine solution.

Accounting for Architectural Features

The floor plan in Figure 56 shows three possible locations for a sofa. Of the three, the wall between the open archways is the best location for the sofa. In that position, the sofa won't block the windows and it will be visually balanced with the room's other walls, which all have rather prominent architectural features.

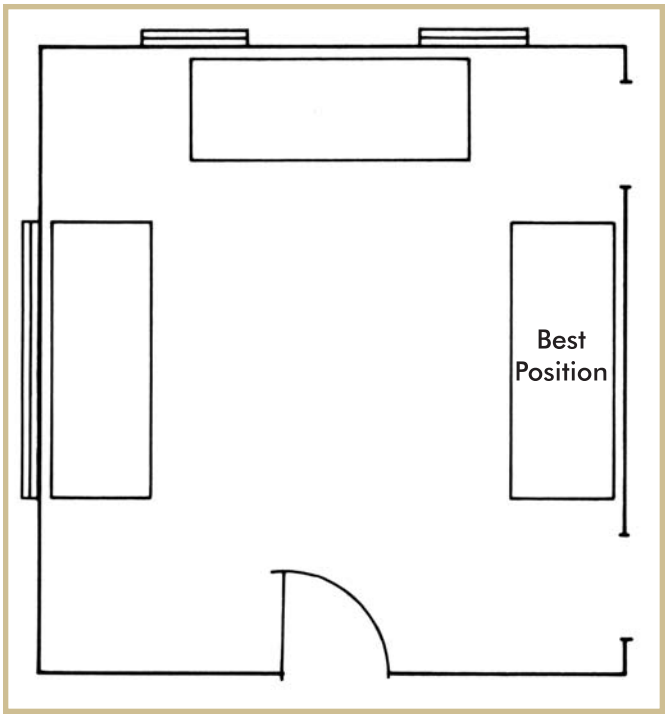


FIGURE 56—As you determine the arrangement of furniture on a floor plan, consider how the placement of each item (or group of items) relates to the architectural features in the room.

In Figure 57A, the sofa combines with the windows to make the right side of the room appear too heavy. The placement of the sofa in Figure 57B, however, visually balances with the two windows on the opposite wall.

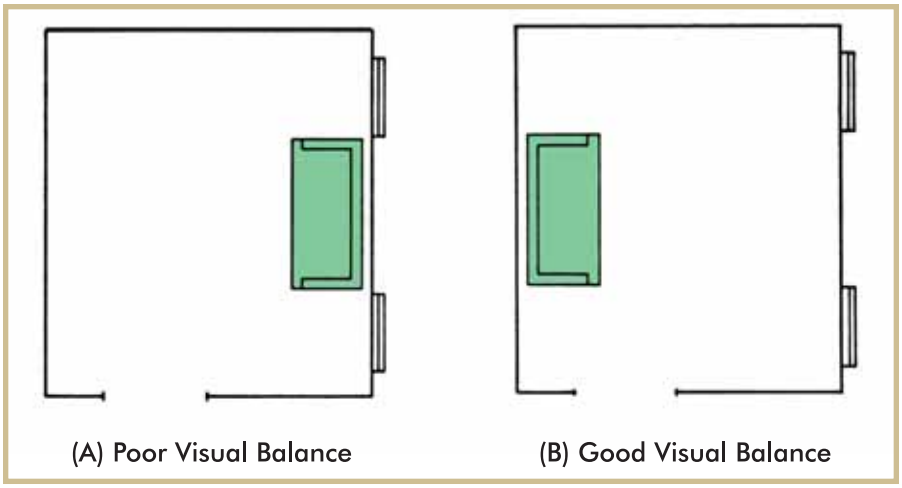


FIGURE 57—Even though the sofa doesn't block the windows in view A, the placement in view B is still better because of the improved visual balance in the room.

Keeping a Balance between Fabrics and Woods

In Figure 58A, the upholstered pieces (shaded) and the wood pieces are segregated from each other. The group containing only upholstered furnishings may seem too heavy, making

the room appear unbalanced. On the other hand, the furnishings could be rearranged, as shown in Figure 58B, to correct the imbalance. Interspersing some of the wood pieces among the fabric-covered ones creates new groups and a room with a pleasing visual balance. Fabric in the draperies over the windows further contributes to a good balance in the room.

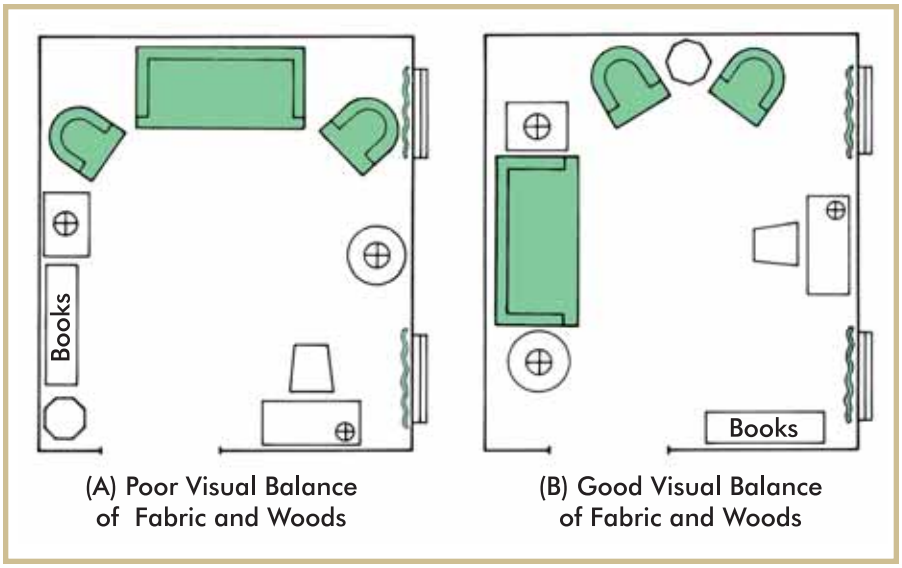
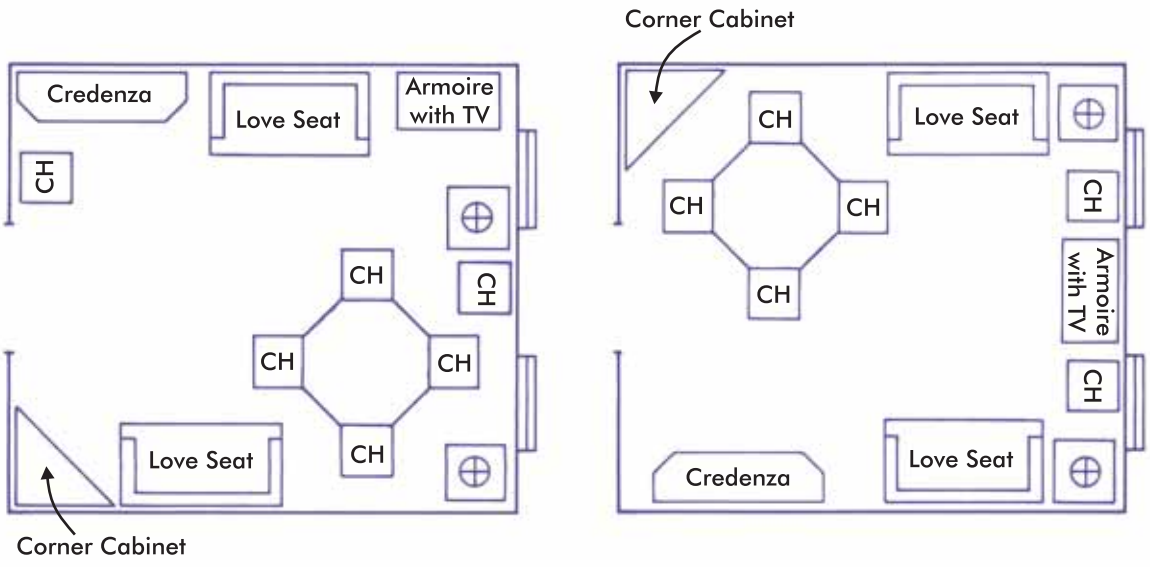


FIGURE 58—Textured and colored fabrics may make a decor seem visually unbalanced if the furniture is arranged as shown in view A. However, if some wood pieces are grouped together with the upholstered furniture, as shown in view B, visual balance can be restored.

Self-Check 3

1. When you look at furniture arrangements, do you simply see a collection of symbols representing furniture pieces, or do you study a furniture arrangement to determine how well the groupings are designed to suit living needs? Examine the two furniture arrangements below, keeping activity groupings in mind. The room should have pieces grouped to accommodate all of these activities: conversation, reading, television viewing, and dining. (Be aware that the credenza indicated in these floor plans functions as a sideboard, or buffet.) After you've examined the two floor plans, decide if one of the furniture arrangements is better planned than the other. If so, which one?

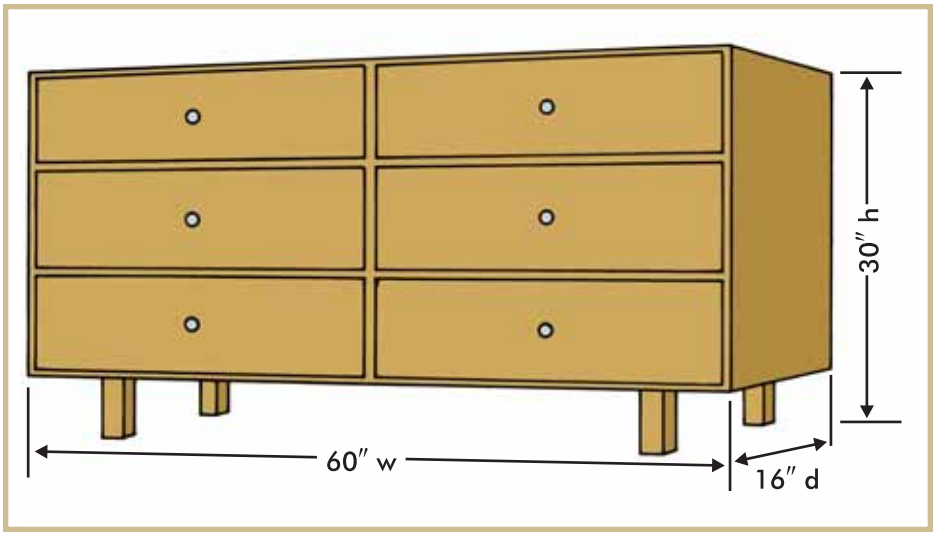
   Note: You may find it easier to decide if you mark the pieces in different colors according to the groupings in which they belong. For example, you might color all the pieces in the dining grouping yellow and all the pieces in the conversational grouping red.



(Continued)

Self-Check 3

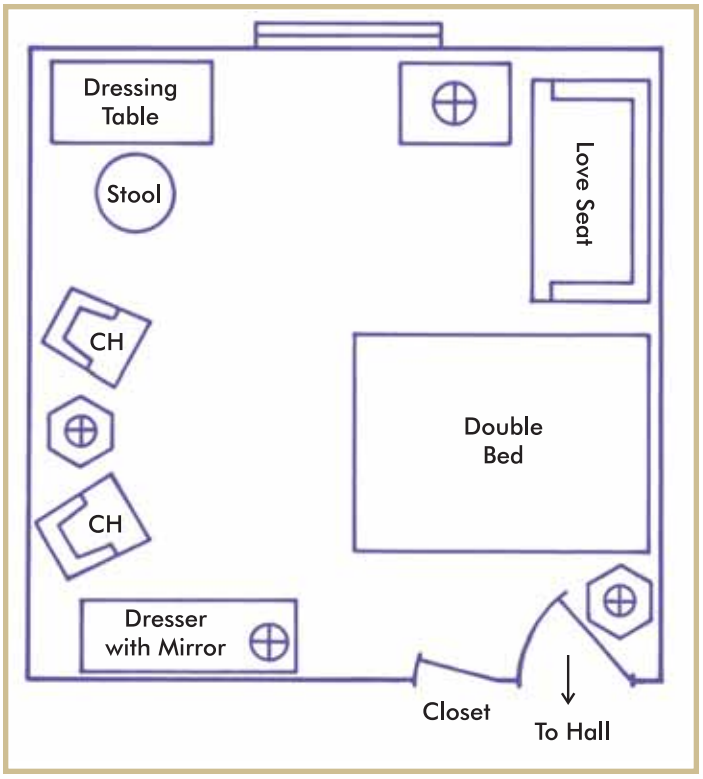
2. On a piece of paper, draw a cutout for the piece of furniture shown below. Make your drawing to scale. *Hint:* First, divide each measurement by 12 to change the measurements from inches into feet.



(Continued)

Self-Check 3

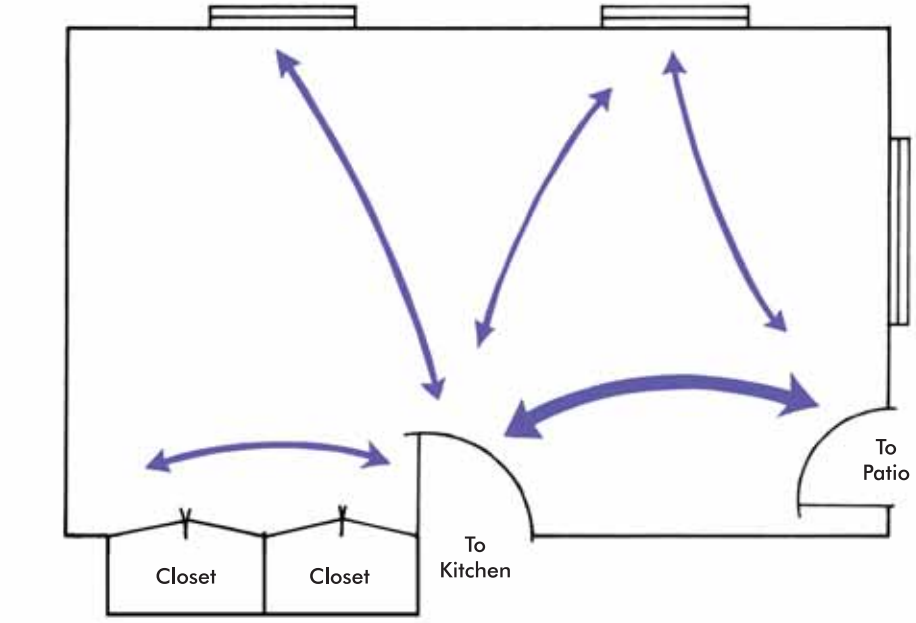
3. Look carefully at the arrangement of bedroom furniture in the illustration below. Keep traffic patterns and spacing in mind. Then, answer these questions. Is the main traffic pathway clear and direct? Is it wide enough for people to walk through quickly and easily? Have minor traffic paths and the spacing between furniture been considered? Draw arrows lightly in pencil on the arrangement to indicate the traffic patterns. Circle any spacing trouble spots. If you think the traffic patterns and spacing need improvement, place tracing paper over the plan and trace the room outline. Then, trace each furniture piece in a position you consider appropriate.



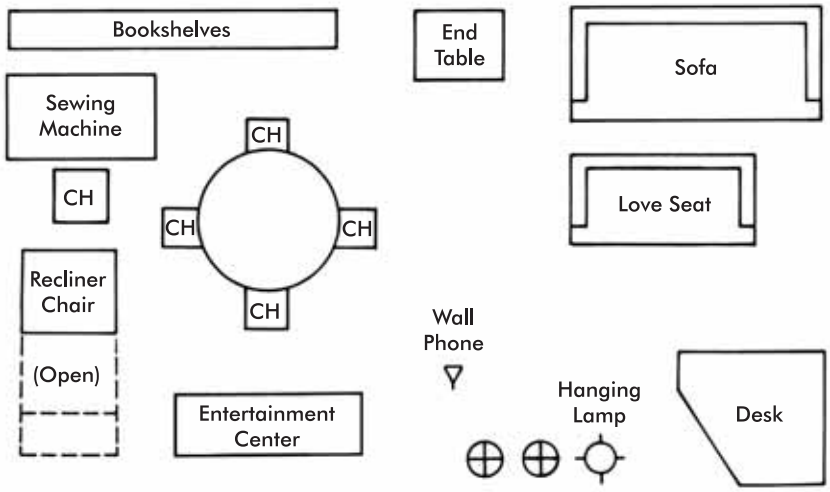
4. Look at the illustration on the following page. The empty floor plan in view A represents the family room of your client's new home. The traffic patterns through the room are represented by arrows. The heavy arrow between the two doorways is the main traffic pathway. The lighter arrows represent minor traffic patterns. The pieces of furniture in view B belong to your client, who wants them to go into the family room. Use tracing paper to trace the floor plan. Then, trace and cut out the furniture pieces and make the best possible arrangement on the plan.

(Continued)

Self-Check 3



(A) FLOOR PLAN



(B) FURNISHINGS

Check your answers with those on page 100.

LOOKING FOR QUALITY WORKMANSHIP AND CONSTRUCTION

Your client, Mrs. Cramer, tells you that she can't understand why she always gets a backache when she sits in her soft-cushioned lounge chair. Another client, Mr. Johnson, tells you that the fabric on his newly delivered sofa looks "rather funny, somehow."

Can you recognize what's probably the source of the complaint in each of these cases? Are you aware that, for people with back troubles, you should recommend firm cushions? And when the fabric on a sofa is described as "rather funny," it may be that the pattern isn't properly matched at the seams, which is a sign of poor workmanship.

As an interior decorator, your reputation may depend on the type and quality of furniture you recommend. A thorough knowledge of furniture construction standards and the types of pieces available should be the foundation of your recommendations. Once you know what to look for, quality can be easily recognized.

The Business of Buying and Selling Furniture

Obtaining the best quality for your client's money is the objective when you're shopping for your client. The production cost for any piece of furniture determines the minimum amount a manufacturer can charge for that piece and still make a profit. The price that a customer pays for an item reflects not only the basic production cost, but additional costs. Store overhead expenses, delivery charges, and extra luxury features raise the price of furniture. While you can do little about overhead expenses and delivery charges, you can figure out ways to help your client save money.

For example, luxury features won't necessarily improve the quality of a piece of furniture. An extra charge is usually made for *double-welt cording* (two welts, side by side), but double-welt cording won't improve a chair's comfort or the way it will wear. A medium-priced item without luxury features is often the best buy. You'll find that most of the people in the business of selling furniture are hardworking and completely honest in their dealings. It's up to you, however, to protect the interests of your client by recognizing and avoiding those who aren't.

A *welt* is a piece of cord covered in fabric. It's used to trim the upholstery seams.

- *Beware of unbelievable deals.* Always avoid "bargains" that seem too good to be true. Buying into such an unbelievable deal is likely to be a costly mistake.
- *Spend extra time, not extra money.* Checking the quality of furniture is time consuming. It can literally bring you to your knees as you investigate the underside of a piece. However, never be afraid to peek, poke, and prod. Your sense of respectability must take second place to your determination to choose only the finest-quality furniture.
- *Get all promises in writing.* Ask to have all verbal agreements put in writing at the time of your purchase.
- *Try to correct any problems at the source.* If you experience a problem, such as poor workmanship or defective furniture parts, promptly contact the dealer. Have on hand the name of the piece, its date of purchase, and its model number. Calmly describe your complaint, without any hostility. Follow up with a letter to the department head or store manager. Include all pertinent information, plus photocopies of the written agreement, the sales slip, and the delivery slip.
- *If you get nowhere, get help.* If a problem isn't resolved to your satisfaction, you may wish to seek assistance. At this point, a lawyer or a consumer organization can help you. Information about consumer protection agencies in your area can be obtained from your local branch of the Better Business Bureau. (Of course, when purchasing

furnishings for your clients through decorator showrooms, you're not apt to run into many problems. The manufacturers and suppliers who operate these businesses rely on your satisfaction and repeat business.)

Wood Furniture

The term *wood furniture* refers to nonupholstered furniture made of wood. Most homes contain some wood furniture. It might have been handed down through generations, or it may have been purchased recently. While some people tend to think that older is better, in the case of wood furniture, this isn't necessarily true. In some ways, the quality of modern veneer furniture surpasses that of older, solid wood pieces.

Wood veneer is a thin sheet of fine-quality wood that's glued to layers of wood, plywood, or particleboard to form a *veneer* panel, as shown in Figure 59. A veneer panel is formed of five or seven layers of wood. The central layer, or core, is solid lumber, or hardboard. The outer layers are thin sheets of wood arranged so that the grain runs in alternating directions to provide greater strength. In Figure 59A, note the arrows indicating the direction of the wood grain. The layers are bonded together to create a veneer wood panel, as shown

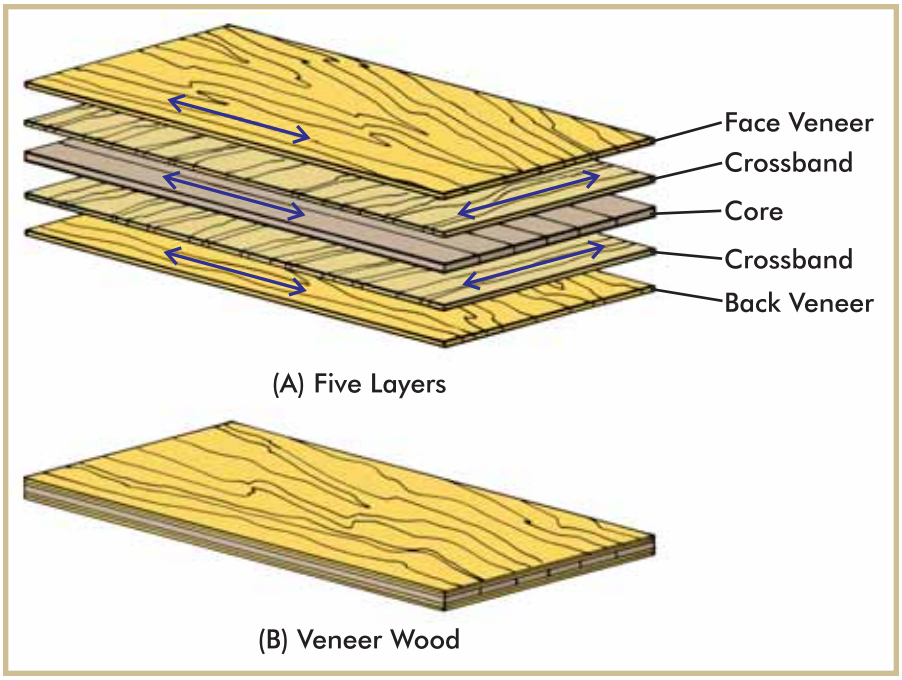


FIGURE 59—Construction of a Veneer Wood Panel

in Figure 59B. The *face veneer,* or outer layer, is chosen for its beauty, since it's the part that shows. Wood veneers rarely crack or come loose from the core, and they're less likely to split, swell, shrink, or warp than is solid wood. Veneer doesn't lessen the real beauty and value of furniture. It simply means that furniture making has been improved by modern technology.

Characteristics and Care of Furniture Woods

Types of woods. Furniture wood is either softwood or hardwood. The term *softwood* generally refers to the wood of *coniferous trees*—that is, trees that bear cones, such as pine trees. Softwood is used primarily for rustic and informal styles, such as Early American. The term *hardwood* refers to woods such as maple, cherry, birch, oak, walnut, teak, and mahogany. Hardwood is frequently used to make finer furniture pieces.

Table 3 lists details about various woods commonly used in furniture making. Most, you may note, are characterized as hardwoods. Because of its durability and practicality, hardwood is more popular than softwood.

Wood furniture finishes. Finishes are applied to wood to seal and protect the surfaces. Proper care is necessary to keep the finished surfaces of furniture in good condition. The following descriptions of various wood finishes include maintenance recommendations you can share with your clients.

- *Oil finishes.* An oil finish consists of a mixture of boiled linseed oil and turpentine. The mixture is applied to the surface and allowed to soak into the wood. Several applications are needed. An oil finish may be sealed with lacquer once the final application is dry. If the finish has been sealed, the surface can be maintained with a creamy liquid wax or paste wax. If the finish isn't sealed, it should be refreshed periodically with a new application of the oil-and-turpentine mix or with an application of a commercial oil finish.

Table 3

A GUIDE TO WOODS COMMONLY USED IN FURNITURE MAKING

Name of Wood	Characteristics	Color	Uses
Beech	Strong, resists shocks, bends when steamed and wet. Hard, close grain with tiny pores. May have a ray-like pattern.	Pale brown to light reddish brown	Bentwood and contemporary pieces
Birch	Very tough, easy to work with. Fine, close grain.	White to yellow to red	Interior and exterior of fine furniture
Cherry	Close straight grain with small pores and contrasting ring growth patterns.	Light reddish brown. May also be finished in fruitwood or light brown.	Fine furniture
Mahogany	Hard, firmly textured, strong, and tough, with no obvious growth rings. The interlocking grain produces various patterns.	Reddish brown	Fine furniture
Maple	Strong and elastic with good shock resistance and tiny, even pores. Straight grained. Curly and bird's-eye patterns may occur.	Cream to reddish brown	Modern and Colonial pieces
Oak	Heavy, hard, strong with rather large pores. Difficult to carve and shape.	Tan to gray brown	Mediterranean and straight-line informal pieces
Pecan	Hard and tough. Strong grain pattern with incidental markings.	Light tan to reddish brown	Provincial, traditional, and contemporary pieces
Rosewood	Large, irregular pores. Exotic color patterns. Can be highly polished.	Red brown or chestnut brown, streaked with black	Victorian and modern pieces
Teak	Straight, coarse grain, often figured or mottled. Lends itself well to an oil finish.	Yellow to dark brown	Modern and other furniture pieces
Walnut	Varying grains, suitable for carving. Scattered pores. Durable and attractive.	Variations of brown, sharply contrasted	Modern and traditional pieces
White Pine	Softwood with no pores. Straight, close grain with very little pattern. Soft, easily worked.	Cream to variations of brown and red brown	Informal, Colonial, and country pieces

- *Paste waxes.* A paste wax is applied and polished in repeated applications until the desired luster is achieved. The finished surface should be maintained by applying another coat of paste wax and polishing the surface with a dry cloth.
- *Varnishes.* Commercial varnish is brushed onto a surface and allowed to dry. Modern varnishes made of synthetic resins brush on easily, dry quickly, and provide a durable finish. A varnished surface can be maintained with wax in a spray, liquid, or paste form.
- *Antiqued finishes.* An antiqued finish consists of a base coat of paint in one color, covered with a top glaze of another color. The top glaze is then partially wiped off to simulate the appearance of age. With light colors, the finish can be cared for with a creamy liquid wax. Darker colors require a paste wax.

How to Check Construction

Check furniture for stability, well-made joints, and a good finish. Lean on each piece to see whether it tips over easily. Push it to see whether it wobbles. Make sure there are no gaps between wood joints. Check to see that the joints are smooth. If joints are reinforced, make sure that screws with washers—not nails—have been used. Inspect the surface finish to make sure that it's perfectly matched on all sides—with no streaks, drips, or bubbles.

Wood furniture is divided into three main categories: tables, chairs, and *case goods* (storage pieces such as dressers, buffets, and breakfronts). Often, as shown in Figure 60, all three categories are used in a single room. Here are some construction tips on all three categories of wood furniture.

FIGURE 60—The dining room table, chairs, and hutch shown here represent the three types of wood furniture: tables, chairs, and case goods. (Photography courtesy of Drexel Heritage Furnishings)

Chairs. Chair seat frames are often joined at the corners with *dowel joints*. In this type of joint, a *dowel*, or peg, is glued into a predrilled hole to connect two pieces of wood. Figure 61A shows a seat frame joined with two dowels in each corner. Using two dowels adds stability to the seat. The joints on chair seats should be strengthened with *corner blocks*, preferably with ribs. As shown in Figure 61B, blocks are placed at corners to reinforce the joints that will come under considerable pressure and strain. The ribs in the corner block provide more surface area for the connection, thereby strengthening the joint.

A *corner block* is a triangular-shaped piece of wood inserted in the corners of joints in furniture to reinforce the joint.

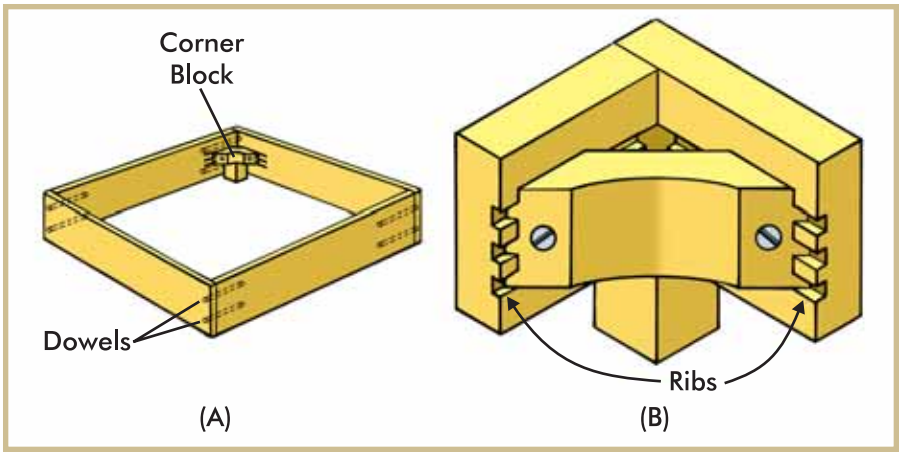


FIGURE 61—The hardwood seat frame in view A is double-doweled at the joints. A corner block, view B, is then screwed into each of the four corners for reinforcement. This type of construction is used to strengthen a joint that has a sharp angle protruding from it.

Legs on a chair should be fastened securely. *Stretchers* (crosspieces connected to the legs) serve to strengthen dining chairs, which are subjected to regular daily strain. The legs on the desk chair in Figure 62 are supported by stretchers. Straight legs on a chair are stronger than angled legs.

FIGURE 62—The stretchers joining the legs of this desk chair add support and strength to the construction of the chair.

Tables. Like chair seats, tables should also be constructed with corner blocks. Legs should be fastened securely. Wood grains should be well matched. The color and grain of any leaves should match the main parts of the table. If the table has an *apron,* the leaves should have a matching apron (Figure 63).

An *apron* is a piece of wood that joins the table top and legs.

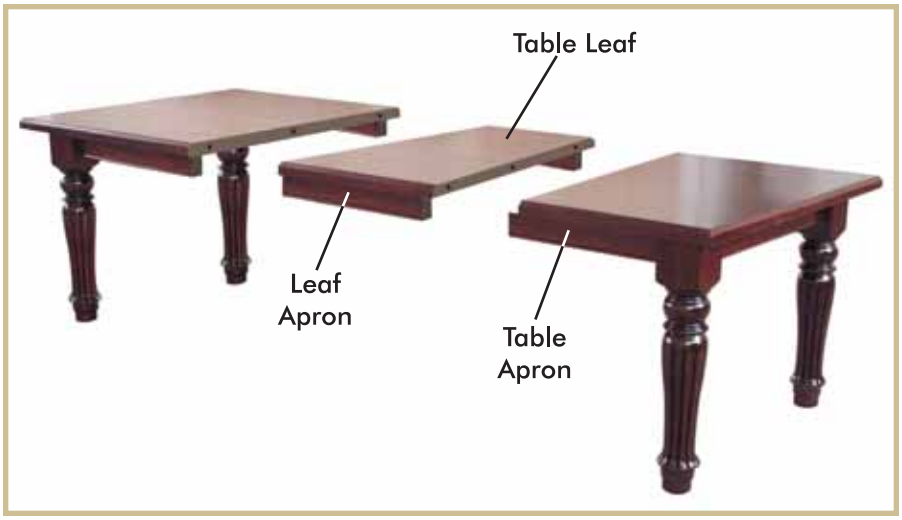


FIGURE 63—A leaf for a table with an apron should also have an apron.

Case goods. Case goods include such items as dressers and cabinets. Check for matching color and wood grain on the front, top, and sides of such furniture. *Distress markings* should be randomly distributed. The inset panels of doors, drawers, and sides should feel solid. They shouldn't wobble when you touch them. The unfinished backing of chests and similar pieces should be recessed and screwed—not nailed—to the frame.

Distress markings are dents and other marks made intentionally to make the wood look old.

Doors should swing freely and fit snugly. Apply gentle pressure to the tops of doors. They shouldn't sag when pressure is applied. Drawers should slide smoothly on a center track or on side glides, and they should close evenly. The drawers should fit tightly without sticking. Drawer bottoms should be firm enough to resist an upward push without buckling. The insides of drawers should be smoothly finished.

The corners of drawers should be joined by tongue-and-groove joints or dovetail joints (Figure 64), which improve the strength and durability of a piece. These joints are especially appropriate in joining wood at angles in areas that come under heavy use, like drawers. Although some experts

believe that dovetail joints indicate a true mark of quality in a drawer, tongue-and-groove joints are very strong when properly glued.

Often included in fine-quality furniture are *dust panels*, thin pieces of wood placed horizontally between drawers. These panels protect the contents of the drawers from dirt and dust.

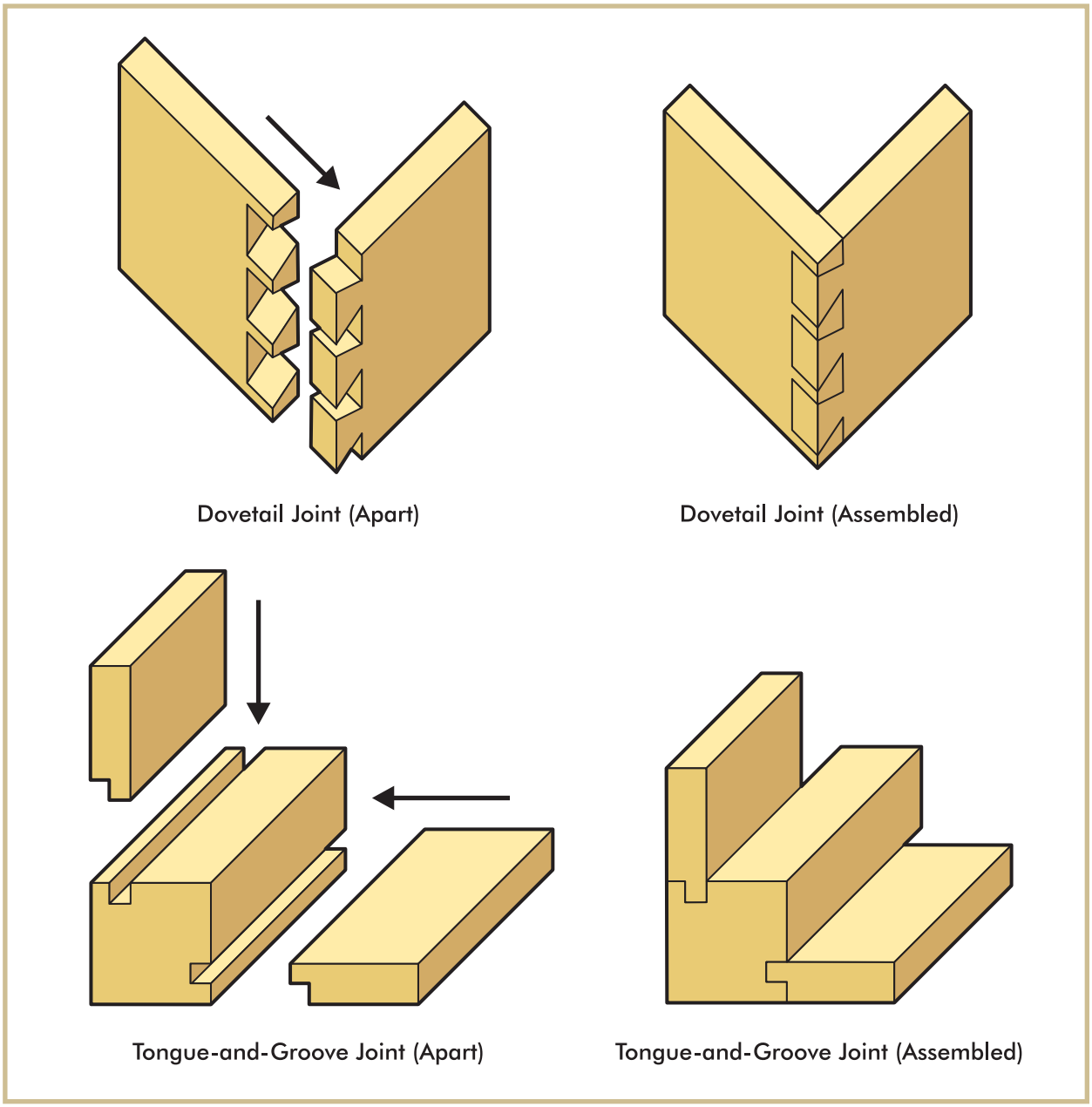


FIGURE 64—Tongue-and-Groove and Dovetail Joints

Hardware. Furniture *hardware* (handles, knobs, hinges, and decorative metalwork) should be suitable for the particular furniture on which they're used. Good-quality hardware is usually cast or stamped from heavy metal, and any rough edges are smoothed during manufacturing. All hardware should be tightly attached to the furniture.

Casters are an important feature to inspect on large, heavy furniture pieces. They should run smoothly across the floor, enabling the heavy piece to be moved easily.

Upholstered Furniture

There are two types of upholstered furniture (Figure 65). An *overstuffed piece* is completely covered with upholstery, while an *exposed-frame piece* has parts of the frame showing—such as the arms, legs, or back.

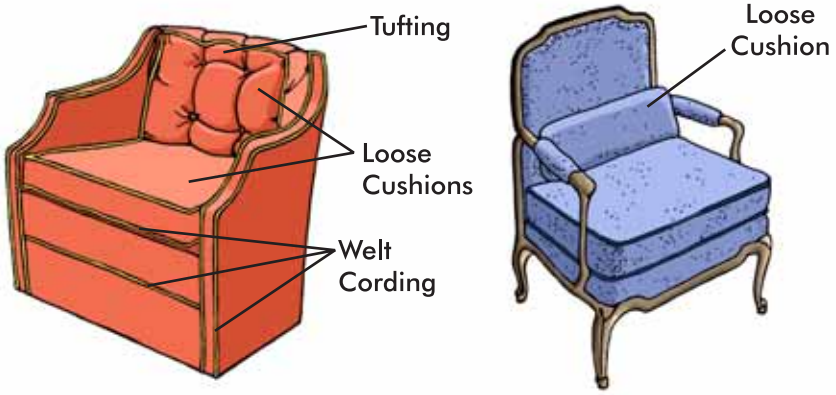


FIGURE 65—The overstuffed chair in view A features tufting, loose cushions, and welt cording. The exposed-frame chair in view B has both upholstery and wood. The exposed wood is actually the frame of the chair. A loose upholstered cushion is included where the seat meets the back. This feature is sometimes provided to add comfort and style.

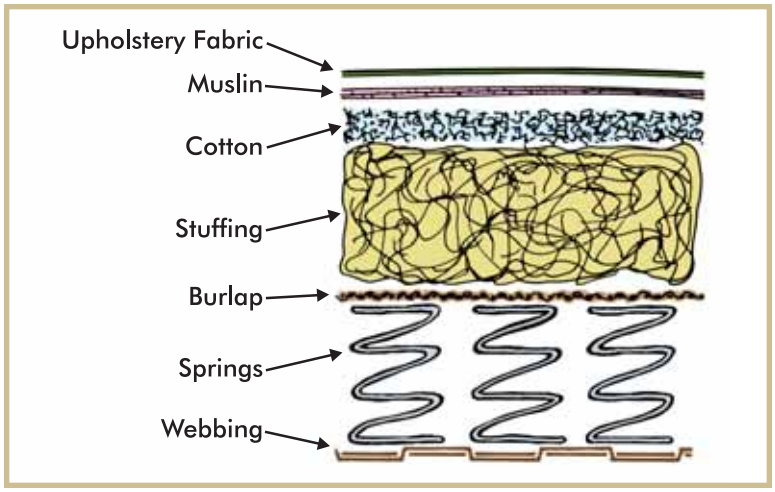
Just one look at an upholstered piece will immediately tell you if it's overstuffed or if it has an exposed frame. For example, look at the sofa in Figure 66. You can immediately tell that it's an overstuffed sofa because you can see no exposed wood. Now, let's look at the quality of the sofa. Do you see any signs of good quality in the overstuffed sofa pictured? Note how the stripes on the back and seat cushions match perfectly with the stripes on the front of the couch. Matching stripes and plaids are signs of good-quality upholstering. However, what you don't immediately see may be what ultimately determines the quality of upholstered furniture. Quality furniture must look good, but it must also be crafted well.

FIGURE 66—A Quality Overstuffed Sofa

Construction of Upholstered Furniture

Cushioning. Figure 67 shows how the cushioning for upholstered furniture is usually constructed. The inner construction of an upholstered piece determines its comfort and quality. Always look for the label attached to an upholstered piece. The law requires that the contents of all upholstered items be listed in detail. Often, labels also give instructions regarding the care of the upholstery fabric.

FIGURE 67—Cross-Section of Cushioning for Typical Upholstered Furniture



Frame. On a piece of quality furniture, the frame should be made of kiln-dried hardwood. Oak, walnut, and teak are among the many woods that might be used for frames. A frame should be straight, with no evidence of warping. All of the joints should be glued and double- or triple-doweled. The frame joints should be corner-blocked and screwed. Figure 68 shows a few examples of furniture frames.

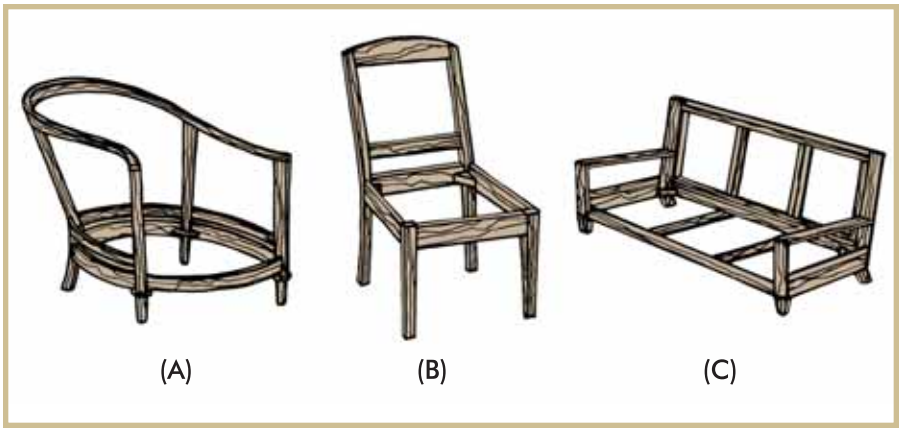


FIGURE 68—These examples show the basic framework of two chairs and a sofa. Note the corner-block construction that strengthens vulnerable stress points.

Webbing. The material used on the very bottom of an upholstered piece is called *webbing.* Two-inch (five-centimeter) strips of jute, flax, or synthetic materials are woven in a basket-weave design and tacked to the bottom of the furniture frame, as shown in Figure 69.

Springs. Springs are located above the webbing. Coil springs are used in upholstered furniture of the best quality. About eight springs are used for each chair seat. The springs are placed close enough to each other to provide good support without getting so close that they rub one another. The springs should be hand-tied to hold them in place. Coil springs give the most comfortable lift.

Sagless, or *zigzag, springs* are S-shaped, flat, wavy bands of steel. They run front to back a few inches apart. Sagless springs, which are more rigid than coil springs, are

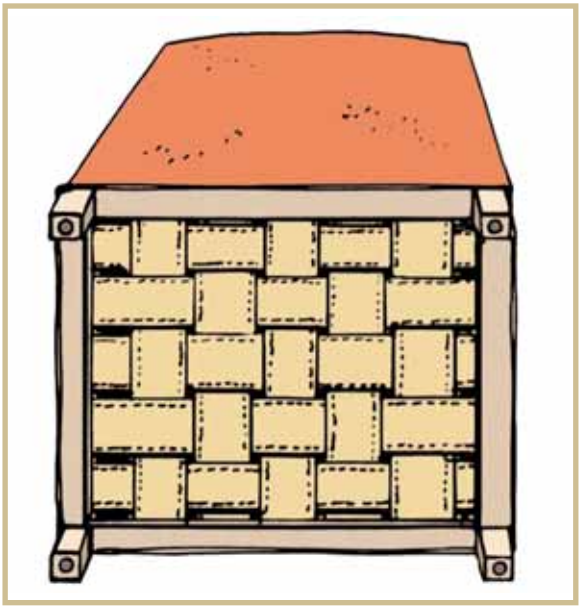


FIGURE 69—Jute webbing is used to cover furniture bases and spring supports. Some modern furniture uses rubber or plastic webbing.

used in slimline furniture and in moderately priced pieces. Their use reduces manufacturing costs because there's no time-consuming hand tying involved.

Stuffing and padding. A layer of burlap or canvas is stitched in place over the springs. Stuffing is then placed over the springs to make the furniture soft to the touch. Filling material, such as polyurethane foam, polyester, rubberized hair, foam rubber, feathers, or down, is used for the stuffing.

The finest-quality furniture has an additional layer of padding, such as cotton felt or fiberfill, between the stuffing and the upholstery fabric. A muslin covering may also be used just beneath the outer fabric. Such a covering helps disperse the tension directed on the upholstery fabric, thereby helping to maintain the shape of the piece.

Upholstery fabric. The outermost layer on the upholstered furniture is the *upholstery fabric.* Most upholstered pieces receive hard wear, so the fabric should be tightly woven and durable. Synthetics, wool, cotton, and linen are commonly used. Vinyl and leather are also very sturdy upholstery materials. Silks and other delicate fabrics should be reserved for pieces that won't be subject to much wear.

Deck. The *deck,* or *platform,* is the hidden surface beneath the cushions of an upholstered piece. It's the part you would sit on if you removed the seat cushion. The deck should be covered in a tightly woven fabric that's coordinated with the color of the upholstery fabric, or it may be covered with the upholstery fabric used on the exposed parts. If a piece of furniture has coil springs, you should be able to feel the springs through the deck fabric.

How to Check for Quality

Carefully inspect an upholstered piece before you or your client buys it. Run your hands over the upholstery to be sure there are no uneven lumps of padding. You shouldn't be able to feel the wooden framework through the upholstery. When sitting on a piece of upholstered furniture, you shouldn't be able to feel any springs. Also, make certain that the upholstery fabric has the proper "give" for the weight of one person or, in the case of a sofa, for several people.

Loose seat cushions and pillows are usually filled with foam, feathers, or down, and they can be any size or shape to fit the frame of a chair. A cushion should be closely fitted to the chair on which it rests. Reversible cushions may help prolong the life of the piece.

All seams and welt cording should be straight. If a piece has buttons, they should be sewn through the stuffing. You can check this by gently tugging on the button. If the button had been properly sewn, you'll feel it in the resistance. You'll also be able to reveal and inspect the ribbon thread with which the button is fastened.

Slip seats are removable cushions on dining room or *pull-up chairs*. Using slip seats helps make cleaning easier. Because they're reversible, slip seats are desirable where rough wear or spills are likely to occur.

A *pull-up chair* is one that the user would "pull up" to something, like a table or a desk. The chair in Figure 62 is a pull-up chair.

When inspecting a recliner chair, check the label to see that the reclining mechanism operates on nylon or steel ball bearings. Then, sit in the chair and test it to see that the mechanism works smoothly and quietly.

A chair or sofa should be comfortable to sit in. Firm cushions give excellent back support. The furniture should be of standard height. Unusually low upholstered pieces are unsuitable for people who have trouble rising from a seat.

If a piece is covered in a patterned fabric, check to make sure that the pattern matches perfectly. Plaids and stripes should be straight and should match at the seams. Floral and large designs should be centered on the backs of chairs and sofas as well as on seat cushions.

Quilting (a stitched pattern joining two layers of fabric with a lightweight filler between them) adds to the life of an upholstered piece. The stitching reinforces the fabric and makes it more durable. For that reason, many decorators prefer to have the entire furniture piece quilted, instead of just the seat cushions.

Arm covers are small pieces of matching upholstery material that are designed to fit over the arms of a sofa or chair. These covers are helpful in preventing wear, and they help to keep the chair or sofa arms clean. Covers are usually available when you purchase the furniture. If not, inquire about

ordering extra upholstery fabric and having them made. Avoid arm covers in a fabric other than the upholstery fabric. Contrasting arm covers detract from the beauty of a piece.

Fabric Finishes and Treatments

Upholstery fabric needs to be able to live through all sorts of everyday, minor disasters. Fabric finishes play an important part in protecting upholstery fabric. Soil-resistant, oil-resistant, and fire-resistant finishes, for example, are available for most upholstery fabrics. When you order an upholstered piece, you should specify that the appropriate special finish be added.

Soil repellents and *oil repellents* are odorless, colorless liquids applied to upholstery to repel water and to resist stains from oil and other liquids. Because of the repellent's protective barrier, spills aren't absorbed. They remain on the fabric surface until they're blotted off.

Most manufacturers agree that soil and oil repellents are most effective when they're applied at the factory or by trained experts. However, having a finish applied to upholstery involves an additional cost. If your client doesn't want to spend the extra money, you can suggest that he or she apply a commercially available spray finish. Be aware, however, that these sprays can sometimes alter the appearance of fabrics. If your client intends to apply a spray finish, advise the client to test the spray on a fabric sample or on an inconspicuous portion of the upholstery before spraying the whole piece.

Metal, Plastic, and Glass Furniture

The furniture market offers a variety of pieces in materials other than wood. Metal, plastic, and glass pieces are so versatile that they can generally be used in virtually any room of a home. These alternative materials often lend an up-to-date look to the furnishings made from them. In addition, these materials are popular because they don't warp, expand, or contract as wood does, and the upkeep of furnishings made

from these materials may be easier. Figure 70 shows an example of an arrangement that consists of pieces crafted from alternatives to wood.

FIGURE 70—The glass table and metal chairs in this dining area provide an attractive alternative to wood furniture.

Strength, comfort, and function mean a great deal when it comes to quality in furniture, but you should also consider the maintenance factor. An intricately carved wood table requires far more care than does an acrylic table with a smooth surface. Remind clients that you can provide them with a number of fascinating furniture ideas, but they're ultimately the ones who will end up caring for the furnishings they select.

Metal

Many metals, such as brass, copper, wrought iron, stainless steel, and chrome, are used for furniture. Metal furniture is very strong and durable. When inspecting metal furniture, check the metal to be sure it's smooth and free from weak

spots, especially along seams. If the piece isn't cast metal, any stress points should be welded. If the piece is collapsible, test the folding mechanism for ease of operation.

Plastic

Plastic furniture is made of such materials as laminated plastic, styrene, urethane, vinyl, and polyester reinforced with fiberglass.

Acrylic furniture is the best in the world of synthetic material furniture. It's strong, tough, and very beautiful. This fine-quality material is used for high-style designs, but of course, it's rather expensive.

Before buying plastic furniture, examine at its thickness. Avoid thin plastic pieces, which are subject to cracking under exposure to pressure and varying temperatures. Choose pieces that are thick and strong enough to withstand heavy use. The joints should be smooth and bonded with strong adhesive and/or sturdy bolts. Remind your client that plastic surfaces can be easily scratched.

Glass

Glass is most often used for tabletops and shelving. The glass should be at least $^{1}/_{4}$ in. (0.6 cm) thick. The exact thickness, however, depends on the intended use for the glass.

Exposed glass edges should be *beveled*, or smoothly ground at an angle. A glass panel should fit snugly inside its frame, instead of simply resting on top of it. Check closely to see that the glass is free from any flaws, such as pinpoint air bubbles. Whenever you have clients interested in glass furniture, explain that glass furniture is relatively strong, but it can still break. Therefore, it's an unsuitable choice for use around children.

In the next section, you'll examine quality in special furnishing, such as beds and children's furniture. Before proceeding to that material, please complete *Self-Check 4*.

Self-Check 4

1. What should you look for when checking the surface of a wood table?

   _____

2. What is *veneer wood?*

   _____

3. What strengthening device is often used between the legs of a wooden dining chair?

   _____

4. What should you look for when checking the edges of glass furniture?

   _____

5. What is *exposed-frame furniture?*

   _____

Check your answers with those on page 103.

LOOKING FOR QUALITY IN SPECIAL FURNISHINGS

Beds

Beds shouldn't squeak or wobble, and they should "give" easily while still providing adequate support for the sleeper's body. Comfort depends on choosing a bed that's the proper size for your clients. However, you must also consider the size in terms of how it will fit into the room in which it's to be placed.

As a decorator, you should become familiar with standard mattress dimensions. Then, you can determine whether a particular size bed is appropriate for the room you're decorating. For example, suppose a client wants to put a king-size bed in a guest room. If you know the dimensions of a standard king-size mattress, you'll be able to determine whether this plan is feasible without measuring actual beds. Another client may wonder whether a twin bed will fit, along with a side table, between the two windows of a new bedroom. Knowing the standard width for a twin mattress can help you to give your client a prompt answer.

Table 4 lists the standard dimensions for various typical mattress sizes.

Table 4

STANDARD MATTRESS SIZES

Designation	Width	Length
Single or Youth	30″ (76 cm)	75″ (191 cm)
Daybed	34″ (86 cm)	75″ (191 cm)
Twin (standard)	up to 39″ (99 cm)	75″ (191 cm)
Twin (extra long)	39″ (99 cm)	80–84″ (203–213 cm)
Double (standard)	up to 54″ (137 cm)	75″ (191 cm)
Double (extra long)	54″ (137 cm)	80–84″ (203–213 cm)
Queen	60″ (152 cm)	80″ (203 cm)
King	76″ (193 cm)	80–84″ (203–213 cm)
California King	72″ (183 cm)	84″ (213 cm)

To determine the length of a bed for a client, add 6 to 10 in. (15 to 25 cm) to the height of the tallest person who will use the bed. For example, suppose the bed you're selecting is for Mr. and Mrs. Baker's bedroom. Mr. Baker is 6 ft (180 cm) tall, and Mrs. Baker is 5 ft 6 in. (165 cm) tall. The most appropriate length for their bed is at least 78 in. (6 ft plus 6 in.), or 195 cm (180 cm plus 15 cm). The extra length guarantees Mr. Baker's comfort by allowing him to stretch out full length.

If your client wants an extra-large bed, such as a king, check to be sure that each hallway, elevator, and stairway on the way to the bedroom is large enough to accommodate the mattress and box spring. Be wary of any sharp turns in narrow passageways. If there are any physical restrictions to moving a large bed, you may advise your client to choose twin beds with a single headboard instead of a king-size bed.

Mattress Types

There are three typical types of mattress: innerspring, foam, and stuffed.

Innerspring mattress. An innerspring mattress (the most popular of the three types) has coil springs that provide buoyancy and resilience. Each coil is encased in a muslin or fabric pocket, and either stands individually or is tied to other coils. The coils are covered with an insulating material such as cotton, polyester, or urethane foam. This material prevents the sleeper from feeling the coils.

When helping a client choose a mattress, you should consider three factors:

1. *Number of coils.* The number of coils in a mattress determines the degree of firmness. The more coils in a mattress, the firmer the mattress. If a client wants a soft mattress, you should generally recommend a mattress with a low number of coils. Conversely, if a client likes a firm mattress, you should recommend a mattress with a larger number of coils.

2. *Gauge of coils.* Gauge refers to the thickness of the wire in the coils. As a rule, thick coils provide greater support than thin coils. Remember, however, that the number of coils also plays a part in support.

3. *Coil connections.* The number of connections between the coils in a mattress helps to determine how well a mattress keeps its shape. The greater the number of connections, the less likely it is that a mattress will sag quickly.

Foam mattress. Generally, a foam mattress is made of urethane or latex foam. A foam mattress should be 4 to 6 in. (10 to 15 cm) thick and firm to the touch. A foam mattress is lightweight and doesn't sag.

Stuffed mattress. A stuffed mattress is typically used on a bed that isn't large enough to hold an innerspring or foam mattress. A stuffed mattress is thinner than either of the other two types. It generally contains cotton or polyester topped by a layer of polyester foam. This foam beneath the outside covering is important as a fire retardant because, in general, stuffed mattresses are quite flammable.

Construction of a Bed

Essentially, a bed consists of a mattress and a box spring on a frame. A headboard and a footboard may be purchased separately and added as decorative features. Sometimes, an entire wooden or metal *bedstead*—complete with a headboard, a footboard, and side panels—is used to hold the mattress and box spring. With a typical arrangement, like the one shown in Figure 71, a headboard or a bedstead is purchased separately from the mattress and box spring.

Mattresses and box springs are manufactured to be sold as sets. The two units complement one another in structure and performance. A standard-size box spring is about 7 in. (18 cm) thick, but thicker ones are available for use with foam mattresses.

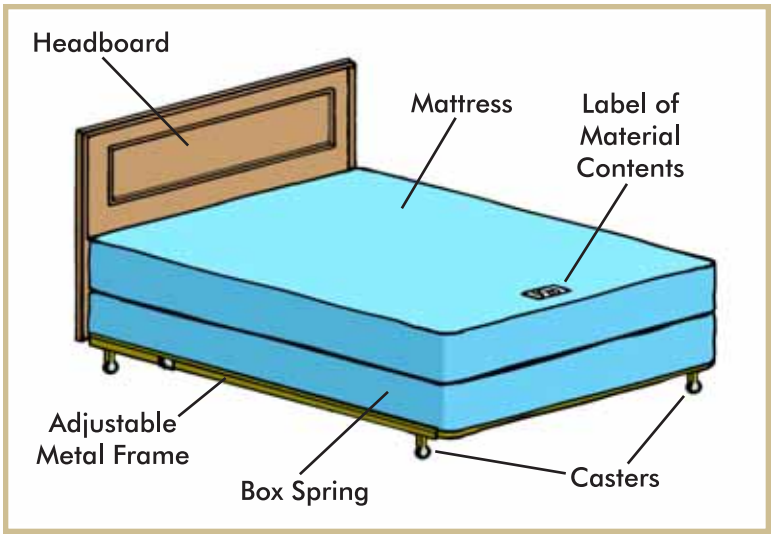


FIGURE 71—The basic parts of a bed include an adjustable metal frame with casters, a mattress, and a box spring. A headboard, and possibly a footboard, is typically purchased separately.

The bed frame must be strong enough to support the weight of the sleeper, the mattress, and the box spring. A bed frame may consist simply of four legs that screw into the corners of the box spring. These legs, however, may break away from the box spring or cause the wooden frame of the box spring to split. Therefore, consider choosing a bed frame that's designed to wrap around and support the box spring. Often, metal bed frames designed like this are adjustable and include casters.

The fabric that covers a mattress is called *ticking*. Since durability is important, the ticking should be tightly woven. Either rayon or cotton is an appropriate fabric for ticking. Avoid styles with buttons or tufting, which disturb the smooth surface of a mattress. Be certain that a label describing material contents and the compliance with fire safety regulations is attached to the mattress (Figure 71).

Special Styles of Beds

A person with an average life span will spend a total of about 20 years in bed. It's no wonder, then, that some people deliberate a great deal over the style and design of beds and mattresses. As shown in Figure 72, the furnishing of a sleeping area can become very personalized, and not every bed needs to consist of a standard mattress, box spring, and frame.

FIGURE 72—This sleigh bed, covered with a handmade quilt, provides a cozy, restful atmosphere. (Reprinted with permission from Lexington Furniture Industries)

Space-saving beds. *Bunk beds* and *trundle beds* (Figure 73) save floor space while providing extra sleeping space. Although they're usually smaller, the mattresses and springs used on these beds are constructed basically like those on regular beds. As shown in Figure 73A, a bunk bed is actually two single beds that are stacked, one above the other. In bunk beds, the frame support is the most important thing. The bottom frame must be strong enough to support the frame, box spring, mattress, and sleeper on the top bunk. A trundle bed is a twin bed with a smaller, second bed that can be rolled underneath it when not in use. See Figure 73B. When looking at trundle beds, be sure that the second bed is small enough to fit completely under the main bed. Also, be sure that the second bed can be slid in and out easily.

(A) Bunk Beds (B) Trundle Bed

FIGURE 73—Bunk beds and trundle beds are wonderful space savers for small bedrooms.

Water beds. Water beds have challenged the conventional notion of a place to sleep. The mattress of a water bed is a plastic liner filled with water and set within a wooden frame. A heater must be used with a water bed to maintain a water temperature of about 91 degrees Fahrenheit. Therefore, energy cost may be an important point to discuss with any client considering the purchase of a water bed.

Although conventional sheets may be used with water beds, they often don't stay in place because the water bed mattresses are slippery. Water bed sheets have large pockets on the bottom sheets, sometimes with elastic sewn in to keep them in place. The top sheet is generally attached to the lower sheet in the middle of the foot end of the sheet.

The main items to look for when purchasing a water bed are a sturdy frame, a puncture-resistant mattress, and a heavy-duty heater controlled by a thermostat. The cord and plug of the heater should carry the approval of the Underwriters' Laboratory (UL).

As an alternative to purchasing a water bed, you might suggest that your client think about a mattress that combines the merits of a conventional bed with a water bed. Such a mattress is constructed like a regular one, but it contains a layer of water or gel to provide the comfort and sensation a sleeper would get from a water bed. Since this type of mattress uses standard bedding and it doesn't need to be heated, the mattress also provides the sleeper with the economy of a regular bed.

Multipurpose and Modular Furniture

Furniture shapes the space your clients live in and should serve their immediate needs. When space is a concern in a decorating job, you may have to be creative and use individual pieces of furniture or furniture groups for two or more different purposes. Today's furniture should be able to fit into different spaces and be useful on different occasions.

Multipurpose Furniture

Many times, a single piece of furniture or a furniture grouping can have multiple uses. The arrangement in Figure 74, for example, can be adapted for a variety of activities. Using one item for several purposes is a very economical way to decorate. Wall systems, nesting and bunching tables, collapsible tables, and many other items are wonderful multipurpose space savers for your clients.

FIGURE 74—This casual table-and-chair grouping can serve a family for games, dining, and numerous other uses.

As space in houses, condominiums, and apartments becomes more expensive to buy or rent, more of your clients will want furniture that can be used for many purposes in smaller spaces. The traditional dining room, for example, is fast becoming quite a luxury. As often as not, the dining table is found in a corner of the living room. Furniture positioned in this way should be selected for versatility, rather than strictly for traditional dining room uses. The table and chairs might be chosen for convenience not only for dining, but as an improvised desk or game table. What used to be a sideboard solely for storage of linens, silver, and china should now be designed to hold stereo equipment, games, and/or books.

As another example of multipurpose furniture, consider the *sleeper-sofa*, or *sofa bed* (a loose-cushioned sofa that opens up into a bed). Clients can use sleeper-sofas for seating guests in the early evening and then later converting them for use as beds. Sleeper-sofas come in styles and sizes to suit almost any room, but they're particularly useful if a client needs a bed in a room that must also serve as a living area.

Other similar multipurpose sleeping units are also available. A *studio couch*, for example, is a couch that can be made into a full-sized bed by sliding out a fitted frame from beneath it. A *futon* (Figure 75) is a large, low couch that converts quickly into a temporary bed.

FIGURE 75—A futon can serve as a sofa during the day, as in view A. Then, it quickly converts to a bed for the night, as in view B.

Any type of multipurpose furnishing has a place in a home if it serves the needs of your client. Always check the size of the unit in both its closed position and its open position to see whether it will fit into the space for which it's planned. If the unit is to serve as a seating piece, be sure the upholstery is a durable material. If the multipurpose furniture includes a mechanism to open the unit, test it to see whether it works smoothly and easily.

Modular Furniture

Modular furniture is also finding acceptance in today's homes. What began as *sectional sofas* has developed into interchangeable pieces that can be used separately or in numerous combinations. Figure 76 shows an example of a modular grouping that can be reassembled into different configurations. Most modular seating pieces are completely upholstered and can be used in almost any way your client desires.

FIGURE 76—Modular furniture like this is a practical investment. It allows for changing arrangements over the years as the needs of the client change. (Reprinted with permission from Pearson Co., a division of Lane)

Contract Furniture

Contract furniture is a particular type of furniture designed and sold for commercial use. Contract furniture is devised to suit the specific needs of institutional markets such as business and government offices, schools, theaters, convention centers, public seating areas, and food service companies. Because it's so specifically designed, contract furniture can be rather expensive.

Whether you're looking for executive chairs, stacking chairs, theater chairs, folding tables, room dividers, bookcases, hospital beds, or other specific designs, keep in mind the following points.

- When buying contract furniture for a client, always consider the needs of the user. Secretarial-type work, for example, requires a chair with an adjustable seat that allows a person to put both feet on the floor. At the same time, the edge of the seat should not cause any pressure behind the knees, which might slow down circulation. People sitting for long periods of time need comfortable seats with ample back support. Students need seats combined with ample writing space.

- Be sure that contract furniture does what it's advertised to do. If an item has adjustable parts, make certain that hinges work, collapsible parts collapse, and swivels actually turn freely. Do all the joints meet evenly? Are all the edges and surfaces smooth? Portable pieces should move easily; stacked items should stack well and save space. If the base of an item is supposed to glide easily across carpets, be sure the item does just that, and be sure everything else on the item does what it's supposed to do.

- When selecting contract furniture, consider comfort for the user, durability, and ease of maintenance through extended use. In every case, make sure you've fully acquainted yourself with the user's requirements. If you're unfamiliar with the nature of the business for which you're purchasing, it's up to you to research its requirements thoroughly.

Children's Furniture: Safety First

Today, most children's furniture is made of wood or plastic. It's important that furniture for use by children be well designed and well constructed; it should be comfortable and sturdy. If the furniture is upholstered, be sure the fabric is durable and stain resistant. Check for the same characteristics of quality that you would consider with wood and plastic furniture for any other use.

When you're buying children's furniture, safety should be your main concern. Avoid pieces with extremely sharp angles and points or with small, removable pieces that could end up in the mouth of a curious child. When buying any painted item, be certain that it's finished with a nontoxic paint. Paint containing lead is poisonous to children who might chew on the furniture. Remember this fact about paint if you're planning to repaint any children's furniture.

Another thing to consider when buying children's furniture is the future. Suppose a client wants to buy a small writing table for her four-year-old. In a few short years, that table may not be sufficient for the same child. Your client will have to purchase a larger desk. Children grow much more quickly than some parents realize or expect, and it's up to you to remind your clients that some possibly expensive furnishings may quickly become obsolete.

You've now reached the end of this study unit. Please complete *Self-Check 5* and then prepare for the examination.

Self-Check 5

1. What additional quality check should you make on such furniture as a sleeper-sofa or a recliner chair?

   _____

   _____

2. What is your *most* important consideration when evaluating painted furniture to be used in a child's room?

   _____

   _____

3. In addition to durability and the furnishing's ability to fulfill advertised claims, what important factor should you consider when shopping for contract furniture?

   _____

   _____

4. Your clients want a king-size bed, and their bedroom measures large enough to house a bed that size. What other factor related to the home's construction will determine whether they'll be able to have a king-size bed?

   _____

   _____

   _____

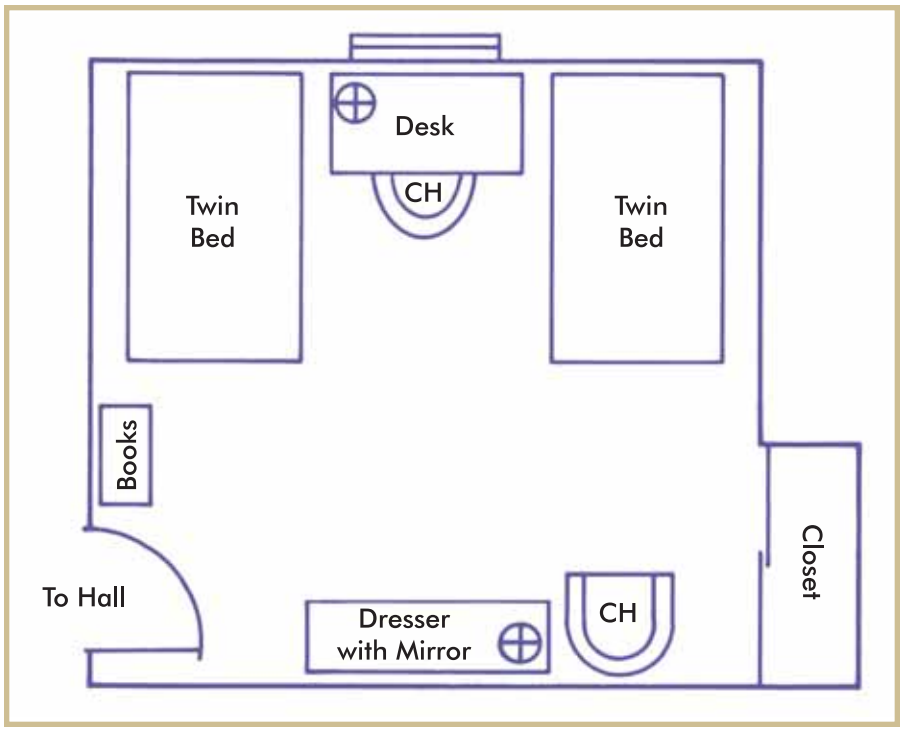
5. Does a headboard usually come with a box spring and mattress as part of the same purchase?

   _____

(Continued)

Self-Check 5

6. Your clients have called on you to solve a problem. Their teenage daughter's bedroom doesn't have enough floor space. She's a member of a drama club that will sometimes meet to practice in her room. Using tracing paper, trace the floor plan shown below. Then, trace or draw a new furniture arrangement onto the floor plan. You may omit or replace furnishings as needed to solve this problem. However, the daughter wants to keep all the conveniences she now has in her room, including space for an overnight guest.



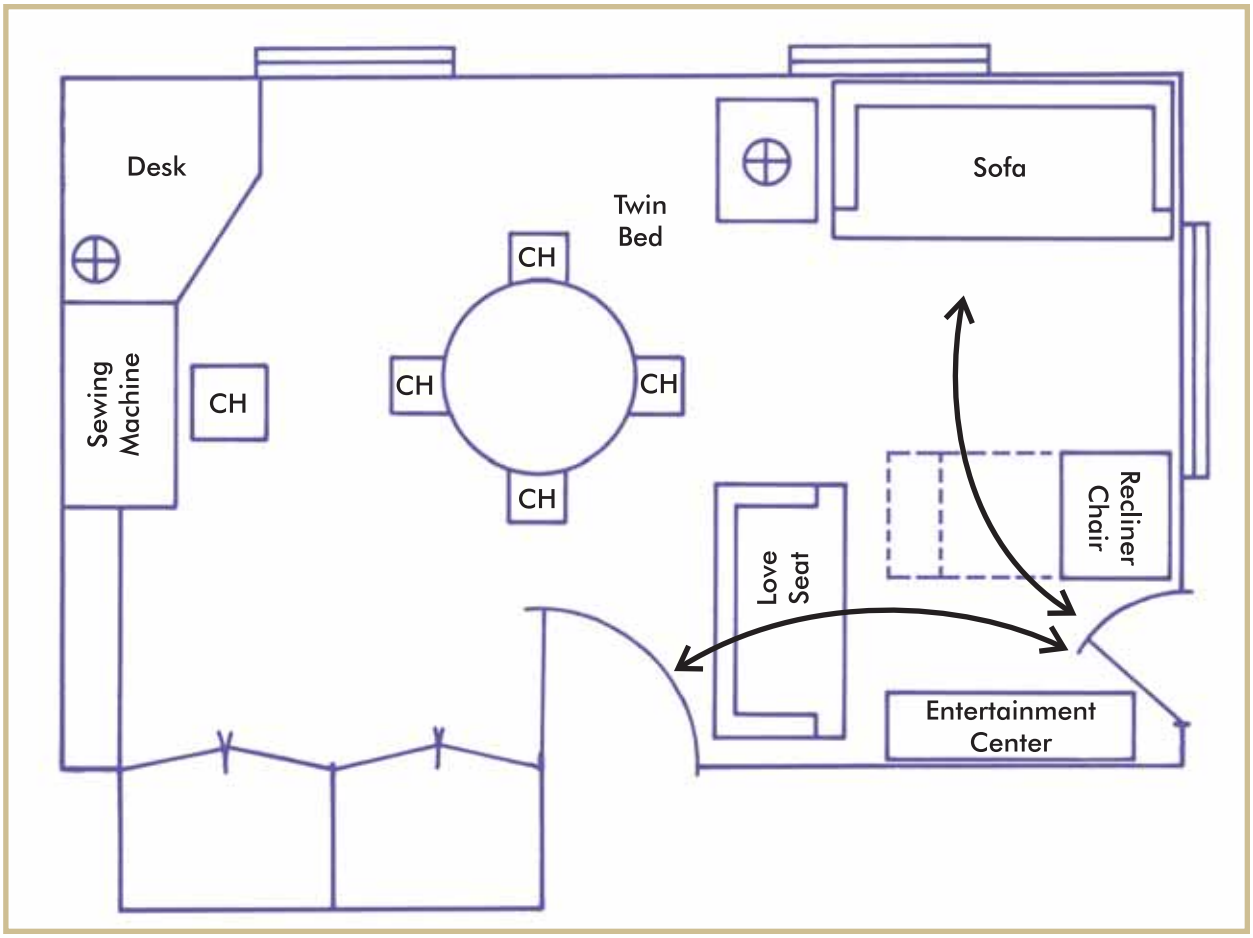
Check your answers with those on page 103.

Self-Check 1

1. Best-use and best-appearance factors must be considered when you're planning furniture placement. Best-use factors should be considered first.
2. Working with fewer pieces of furniture makes it easier for a decorator to develop a good floor plan.
3. Typically, a greater number of horizontal lines create a more pleasing effect.
4. You should consider empty space as a design element and part of the room's overall design.
5. When planning furniture placement, you should consider how sunlight, temperature extremes, humidity, and frequent changes of temperature may affect the furnishings in various locations.

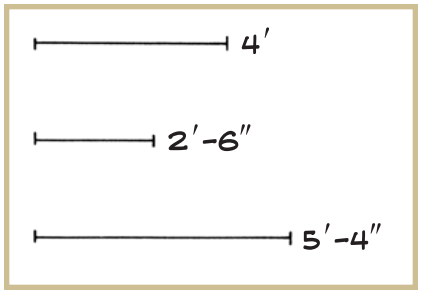
ANSWERS

6. As shown below, the recliner chair (in the open position) and the love seat will block traffic through two of the room's doorways. The location of these two furniture items makes this arrangement unsatisfactory. In addition, notice that the entertainment center interferes with the opening of the door. If the person who drew this plan had used the proper symbol for a door (Figure 23), this problem would have been evident.

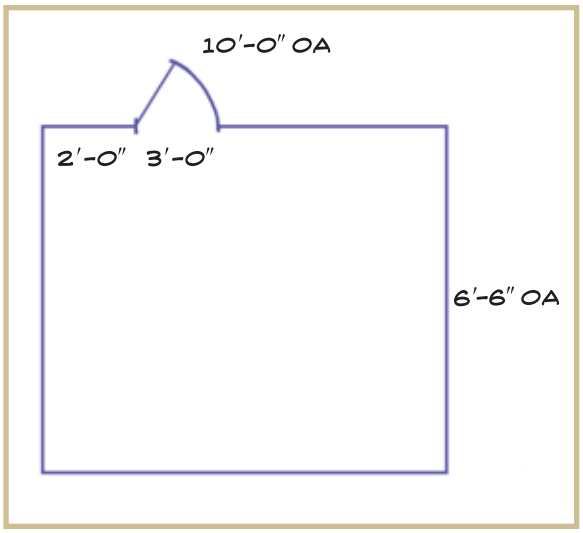


Self-Check 2

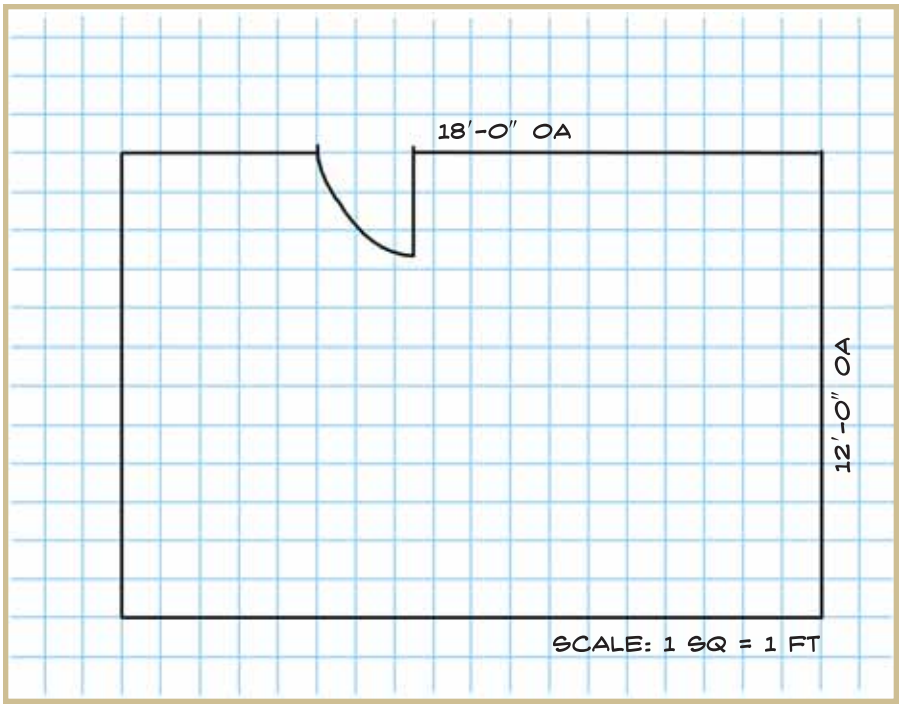
1. Compare your lines with those in the illustration to the right.



2. Compare your scale drawing to the one shown in the illustration below.

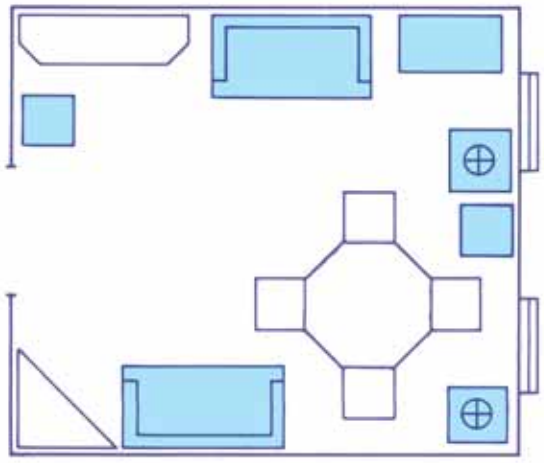


3. and 4. Compare your scale drawing with the one shown in the illustration below.

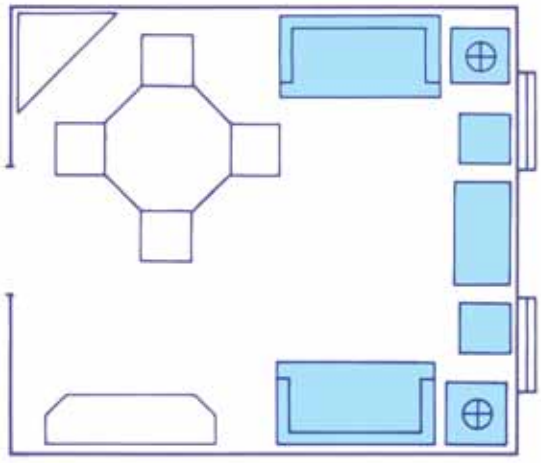


Self-Check 3

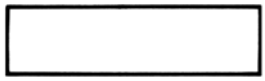
1. Floor Plan B is the one that distributes the furnishings for best use. If you color the furnishings according to grouping, as shown below, you can see that the furnishings aren't grouped for best use in Floor Plan A.



(A) Poor Floor Plan



(B) Good Floor Plan

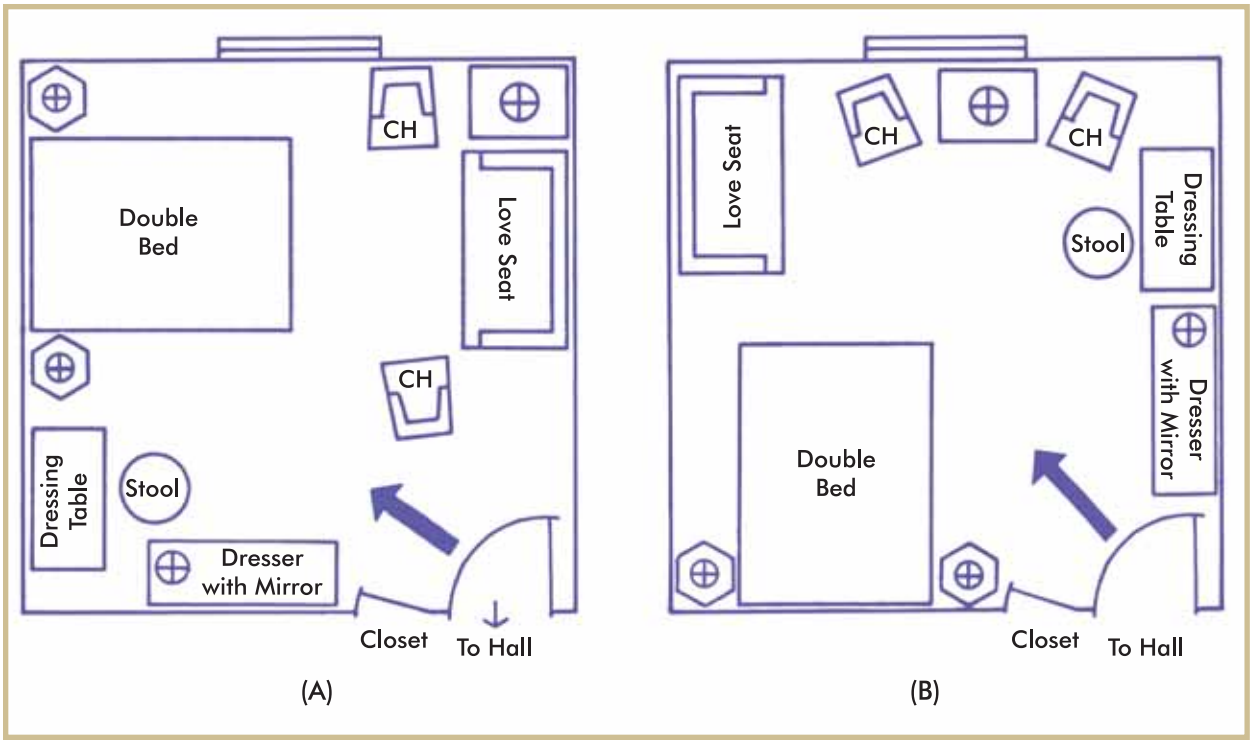


2. Your $^{1}/_{4}$ in. scaled cutout of the double dresser (60 in. × 16 in.) should be the size and shape of the illustration to the left.

3. The following problems are apparent in the original floor plan. The main traffic pattern isn't clear and direct. The bedroom door can swing only partway open before it bumps the hexagonal nightstand. When the closet door is open, it blocks the pathway into the room. The space between the corner of the bed and the corner of the dresser is too narrow for a main traffic pathway. The room appears to be spacious, but some of the pieces seem to be badly positioned. Spacing between some pieces is inadequate. Note how the lamp table blocks seating space on one side of the love seat. The love seat, in turn, blocks part of the bed, which can possibly cause inconvenience.

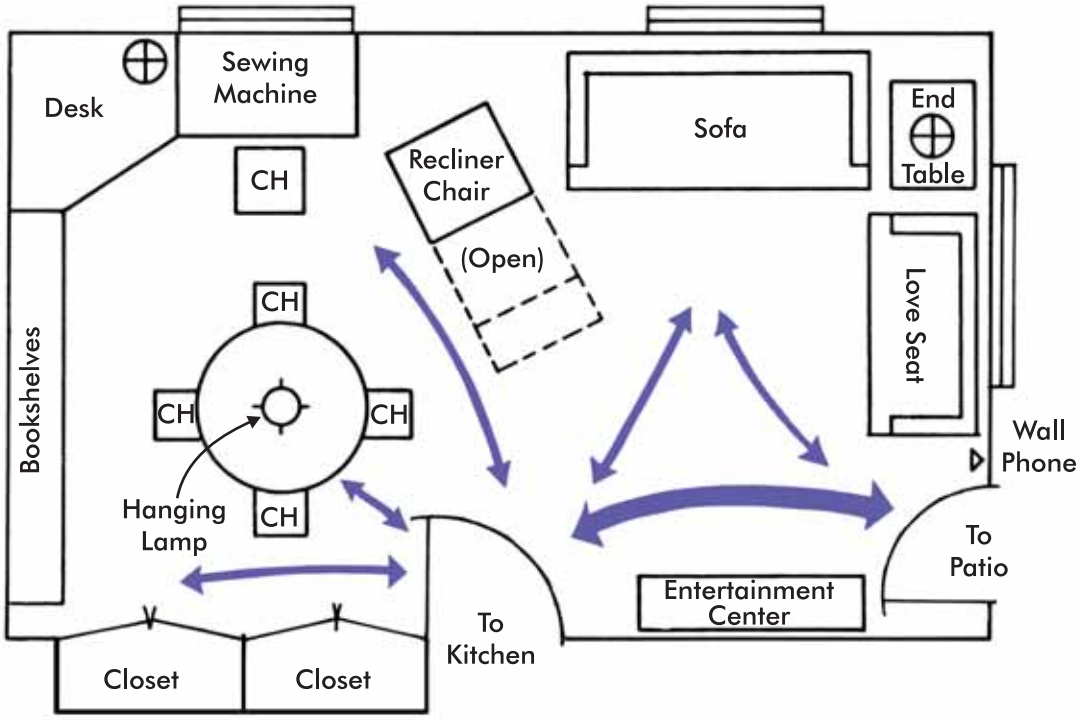
Meanwhile, the armchair near the dresser will interfere with anyone trying to open the dresser drawers.

Two improved furniture arrangements are shown below. In each, the entry into the room is quite wide and inviting. The arrows indicate the main traffic pathway into the bedroom. A person entering the room wouldn't feel walled in by furniture. The pieces are located where each can be fully utilized without interference from the others. Note that the same pieces have been used in all of the arrangements.

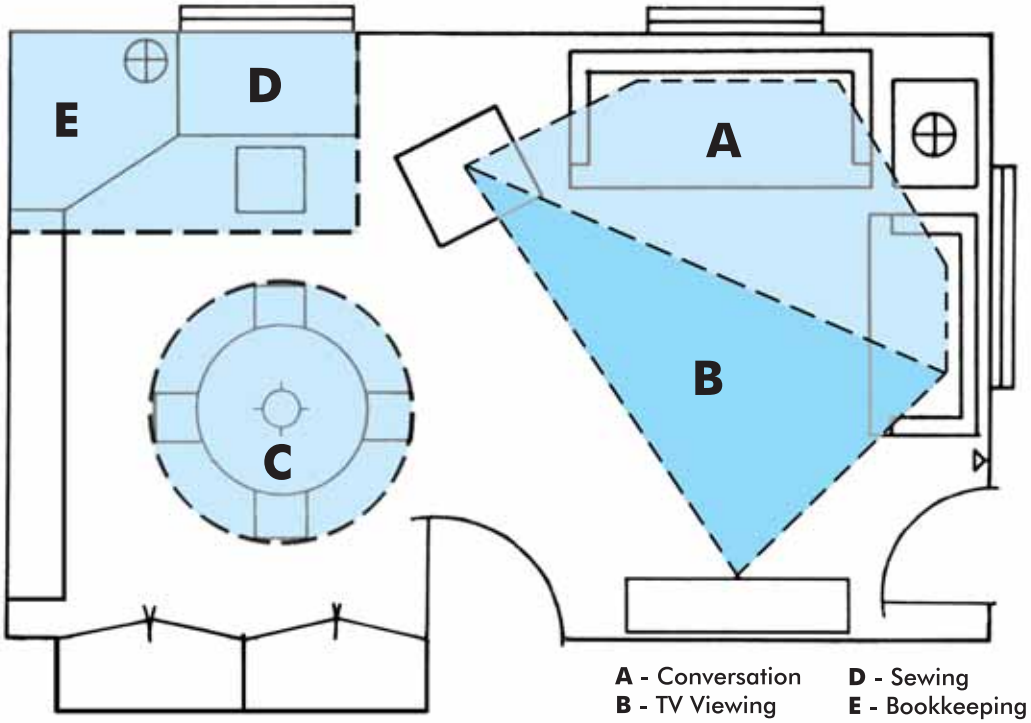


4. The illustration on the following page represents an excellent arrangement of the furnishings. Can you see why? All of the traffic pathways are left free for easy movement. In addition, the activity areas don't interfere with each other.

   Note: Your arrangement is undoubtedly somewhat different from this one. Have you adequately provided for traffic pathways? Have you considered the groupings?



(A) TRAFFIC PATHWAYS



(B) GROUPINGS (ACTIVITY AREAS)

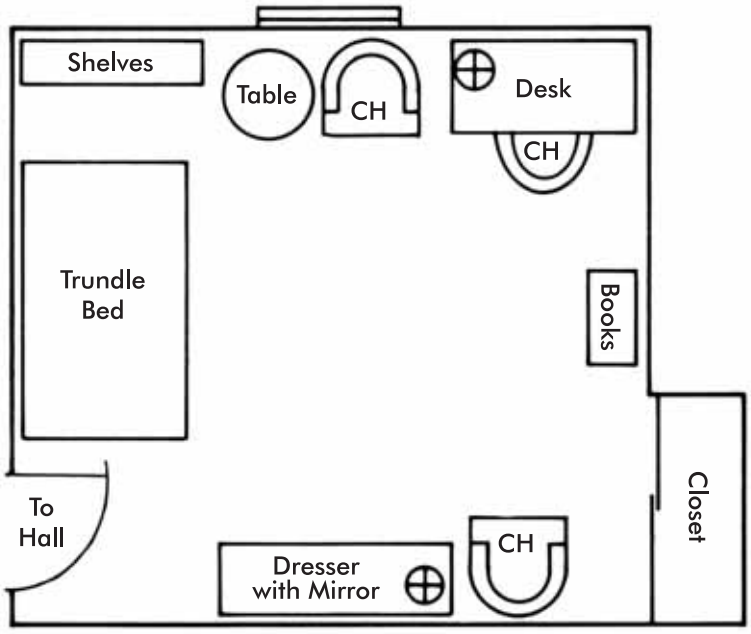
Self-Check 4

1. The wood grain should match on all parts—including extra table leaves—and the finish should be even, with no streaks, drips, or bubbles.
2. Veneer wood is a product composed of layers of various wood materials topped by a veneer, or thin covering, of finish wood. Veneer wood has the appearance of being solid finished wood throughout.
3. Stretchers between the legs of wooden chairs are often used to provide strength.
4. The exposed edges of glass furniture should be beveled (smooth and rounded).
5. Exposed-frame furniture combines a wood frame with upholstered seats and backs. (With overstuffed upholstered furniture, the frame is completely covered.)

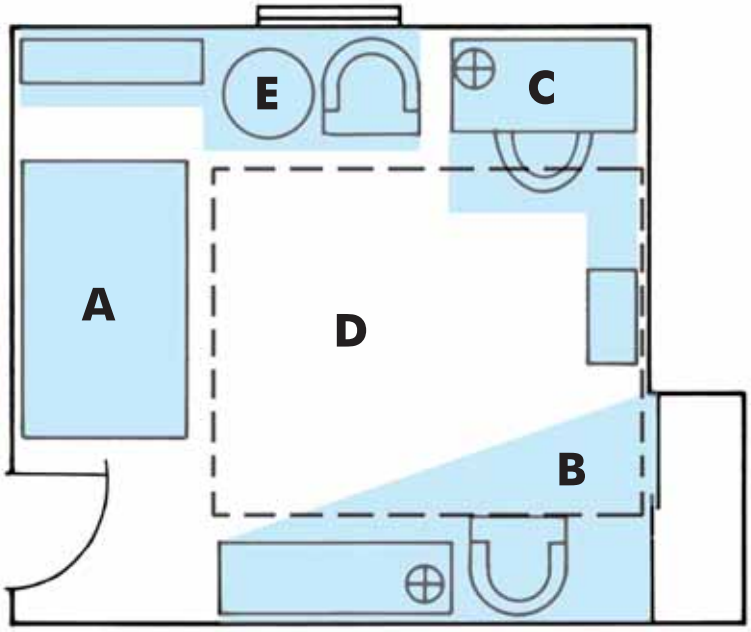
Self-Check 5

1. You should try out the item in both the open and closed positions to be sure that the folding mechanism functions smoothly.
2. You must be certain that only unleaded paint is used on children's furniture.
3. When buying contract furniture for a client, always consider the needs of the user.
4. The corridors, stairways, turnings, and doorways leading into the client's bedroom must be large enough to permit the passage of a king-size mattress and box spring.
5. No. A headboard, box spring, and mattress are usually purchased separately.
6. To get more floor space, one of the twin beds may be replaced with a trundle bed that can be slid under the girl's higher bed. This replacement allows the girl to continue having overnight guests, but it also opens up floor space for drama rehearsals when the trundle bed isn't being used. An arrangement that uses the trundle bed

is shown below. The room now contains an additional chair, a table, and shelves. Ample floor space is available for drama practice in this arrangement, and the activity areas are well grouped.



(A) PLACEMENT OF FURNISHINGS



A-Conversation, **B**-Dress, **C**-Study, **D**-Drama Practice, **E**-Reading or Guest

(B) GROUPINGS (ACTIVITY AREAS)

Decorating with Furniture

EXAMINATION NUMBER

01202600

Whichever method you use in submitting your exam answers to the school, you must use the number above.

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Questions 1–20: Select the one best answer to each question.

1. A major traffic pattern in a room should have a clear width of about at least

   A. 18 in. (46 cm).
   B. 2 ft (60 cm).
   C. 4 ft (120 cm).
   D. 6 ft (180 cm).

2. What is the *most* important feature to consider when you're purchasing furniture for a child's room?

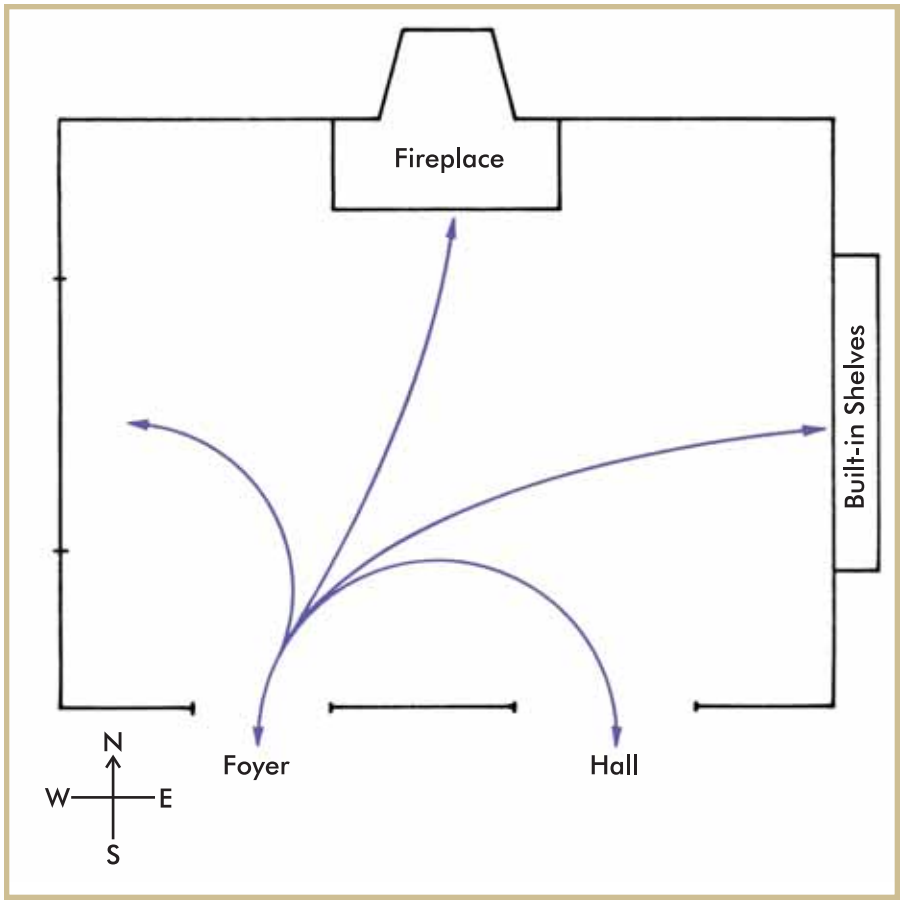
   A. Appearance
   B. Use
   C. Size
   D. Safety

Examination

3. What does the diagram in Examination Figure 1 tell you about the room it represents?

A. The scale of the room
B. Natural traffic patterns
C. Suggested furniture placements
D. The number of people who will use it

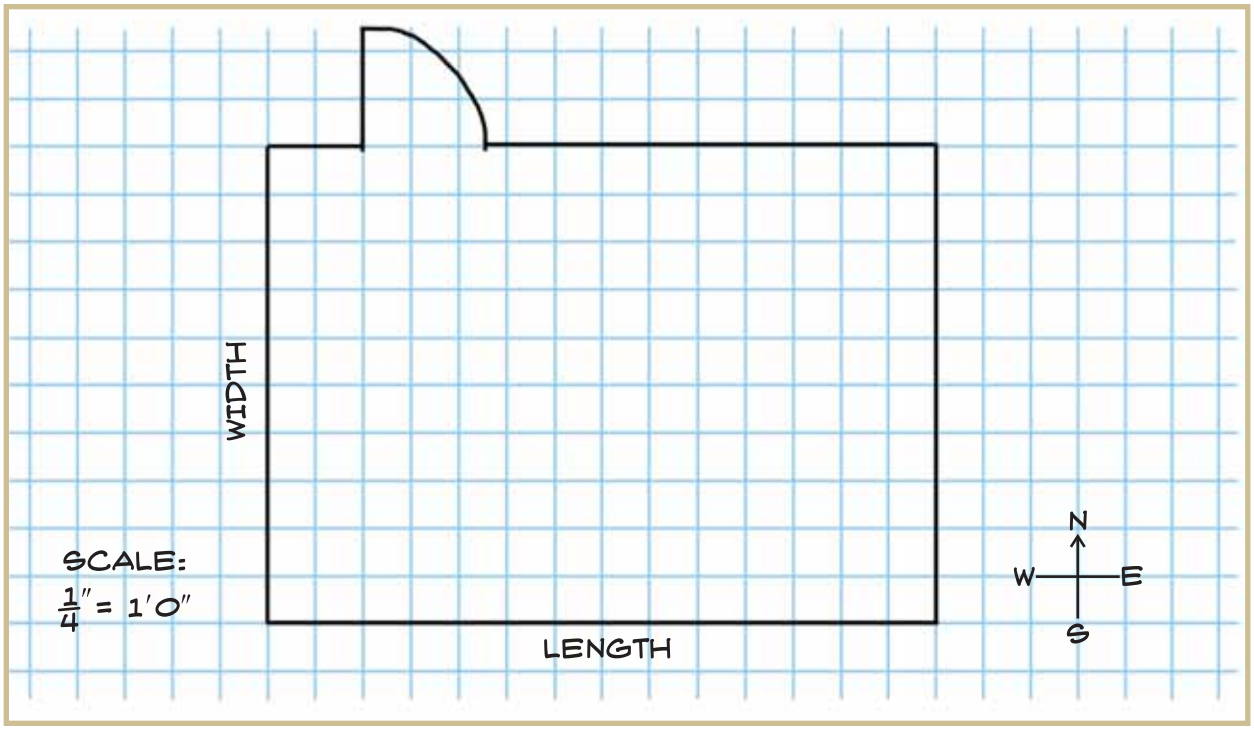
EXAMINATION FIGURE 1



4. You're redecorating the master bedroom for a client. The husband of the couple is 6 ft 2 in. tall, and the wife is 5 ft 6 in. tall. What is the *minimum* length of the bed you should recommend for this couple?

A. 72 in.
B. 74 in.
C. 80 in.
D. 84 in.

Use Examination Figure 2 to answer questions 5–7.



EXAMINATION FIGURE 2—Use this illustration to answer questions 5–7.

5. In Examination Figure 2, 1 sq = 1 ft. What are the dimensions of the room outlined in that figure?

   A. 10 ft × 14 ft
   B. 12 ft × 14 ft
   C. 14 ft × 28 ft
   D. 15 ft × 28 ft

6. In Examination Figure 2, what is the length of the north wall to the east of the door opening?

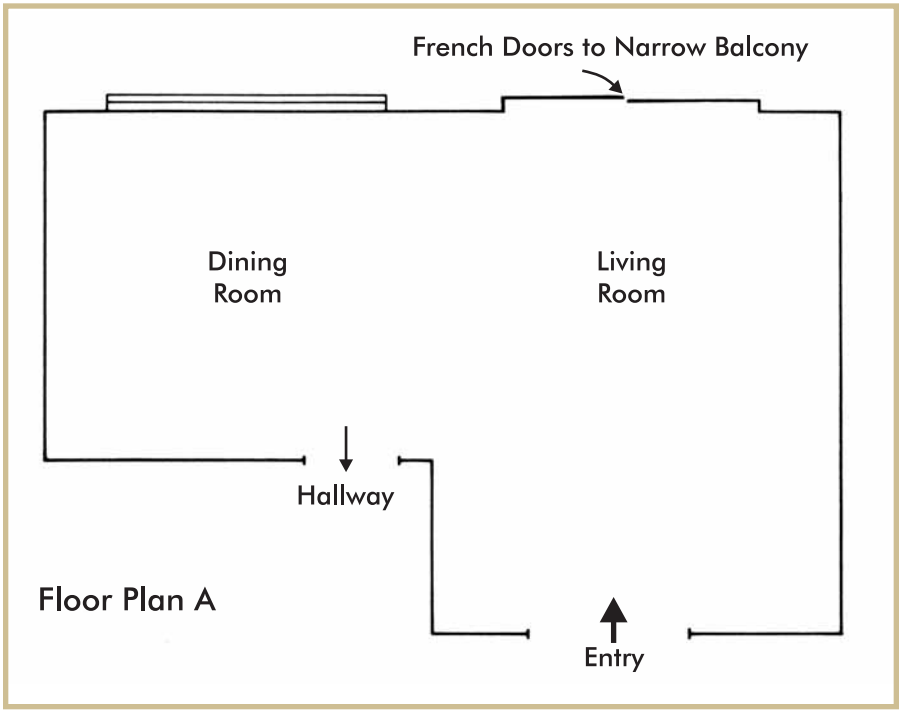
   A. 2 ft
   B. 2 ft 6 in.
   C. 9 ft
   D. 9 ft 6 in.

7. How wide is the door opening in Examination Figure 2?

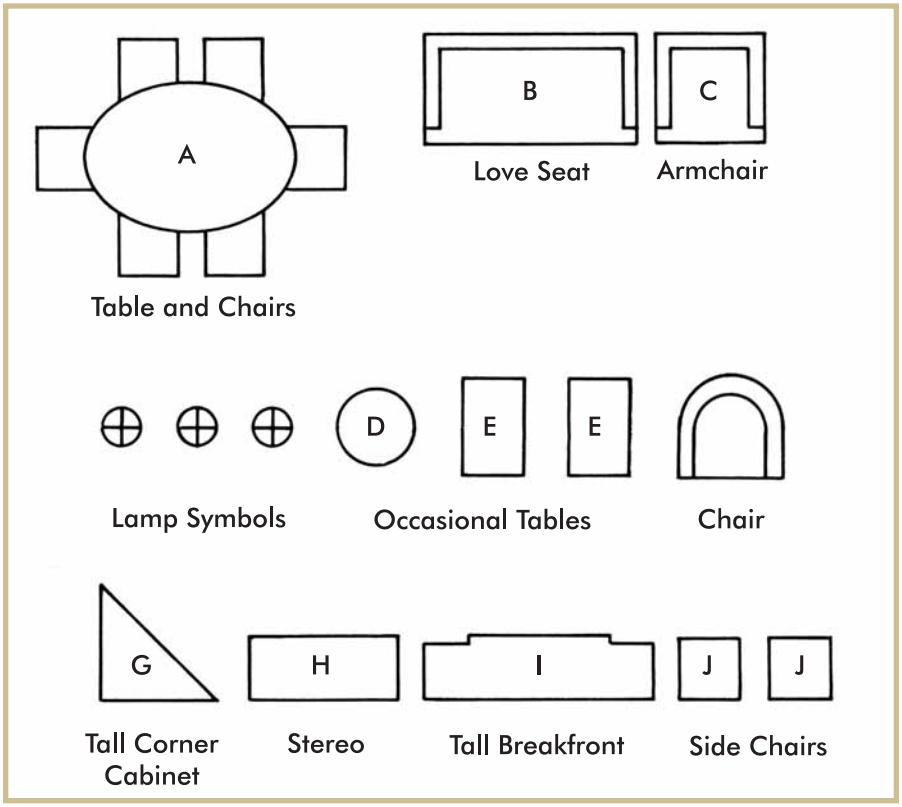
   A. 24 in.
   B. 30 in.
   C. 36 in.
   D. 42 in.

Use Examination Figures 3 and 4 to answer questions 8 and 9.

EXAMINATION FIGURE 3—This illustration shows the floor plan of a dining room, living room, and entry.

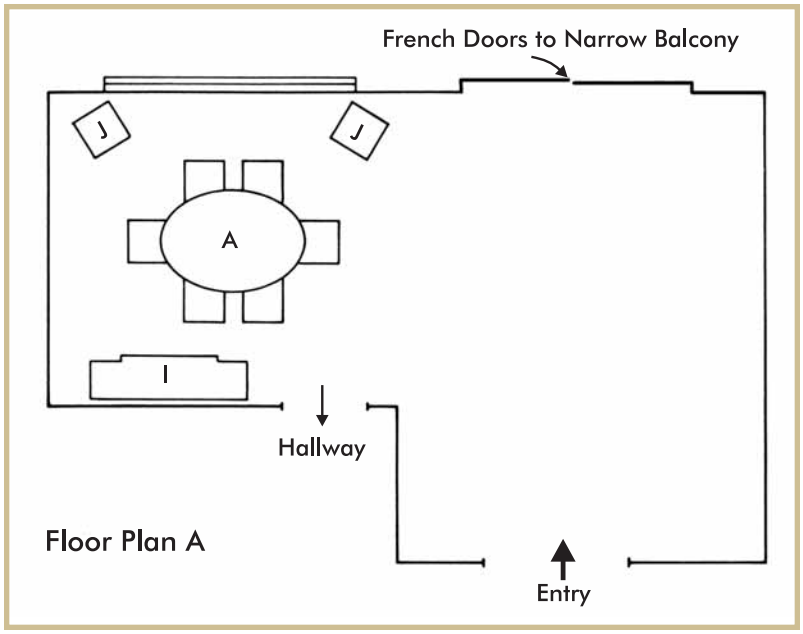


EXAMINATION FIGURE 4—Use these pieces of furniture as a key to help you answer questions 8 and 9.

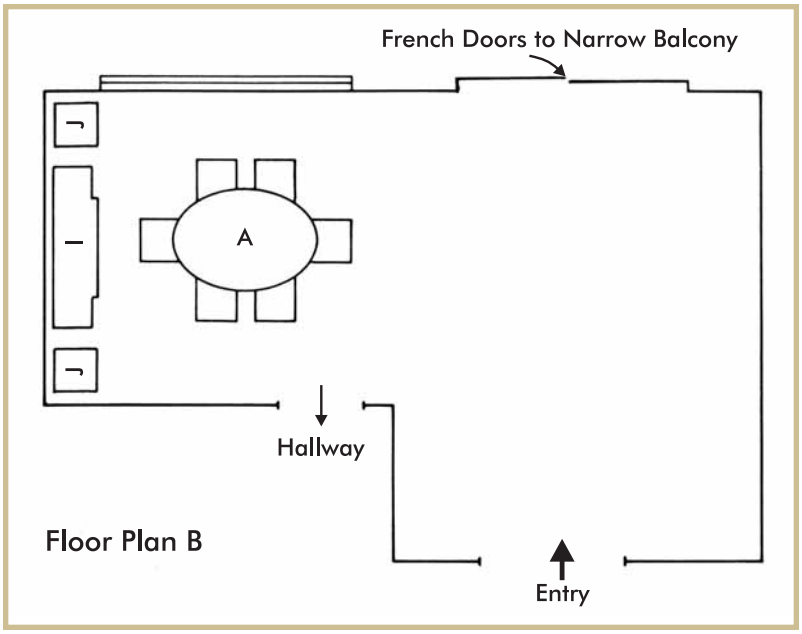


8. The combination living and dining room in Examination Figure 3 is to be used for general family activities. When you consider the principle of balance, as well as the intended function of the room, which one of the following floor plans would you identify as showing the *best* arrangement for the furniture in the dining area?

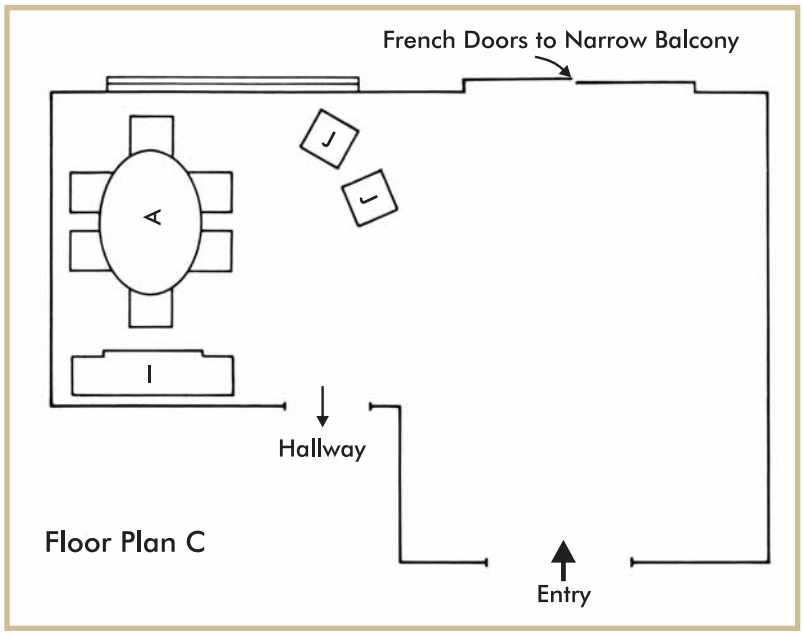
A.



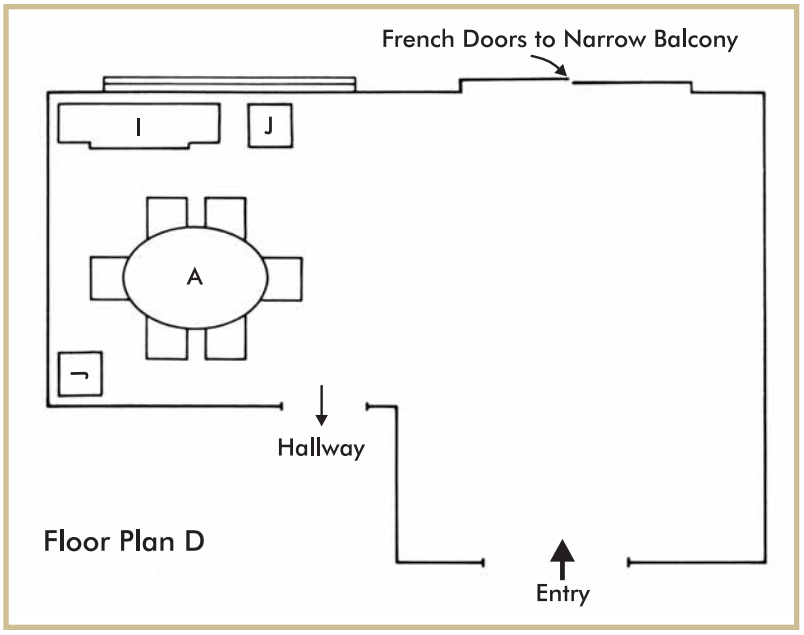
B.



C.

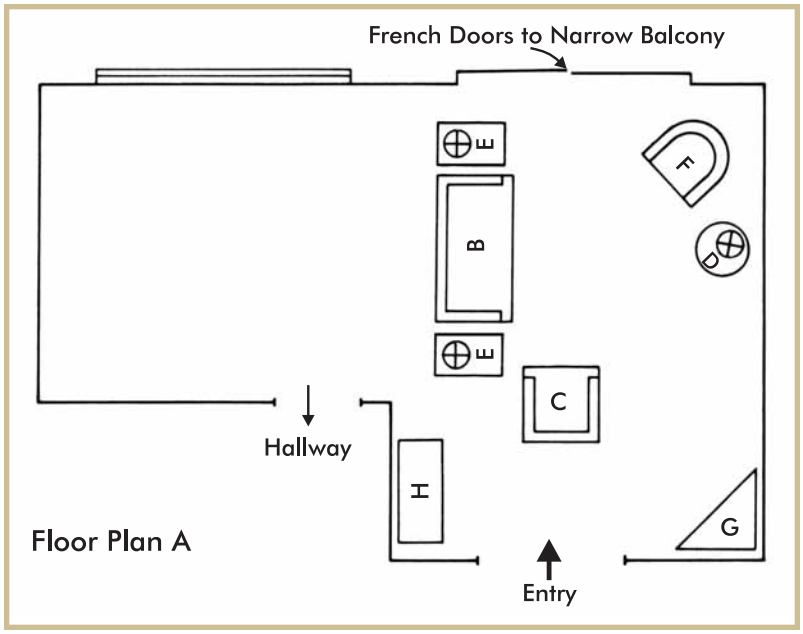

French Doors to Narrow Balcony
J
J
A
I
Hallway
Floor Plan C
Entry

D.

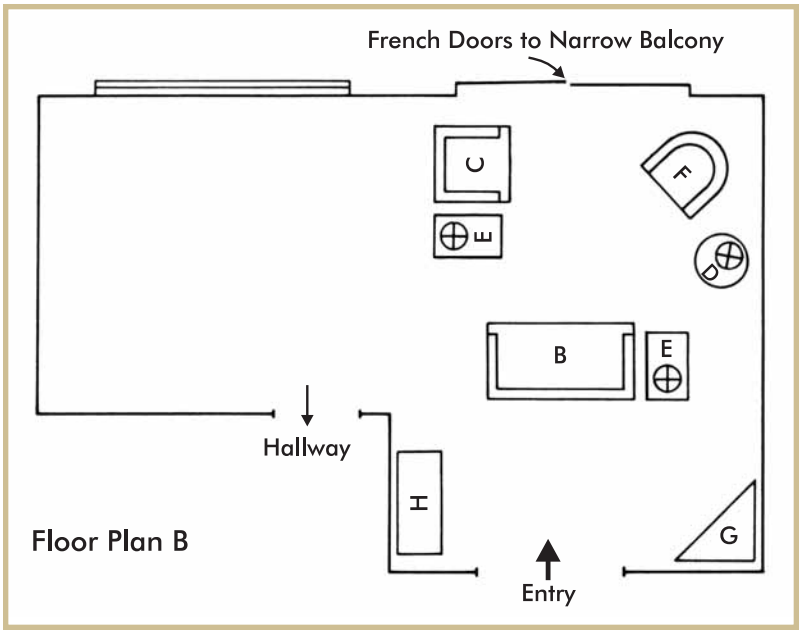

French Doors to Narrow Balcony
I
J
A
Hallway
Floor Plan D
Entry

9. When you consider such factors as the flow of traffic and ease of conversation, which one of these four plans showing the living room area contains the *best* furniture arrangement? Keep in mind the amount of space needed for leg room when all the seating pieces are occupied.

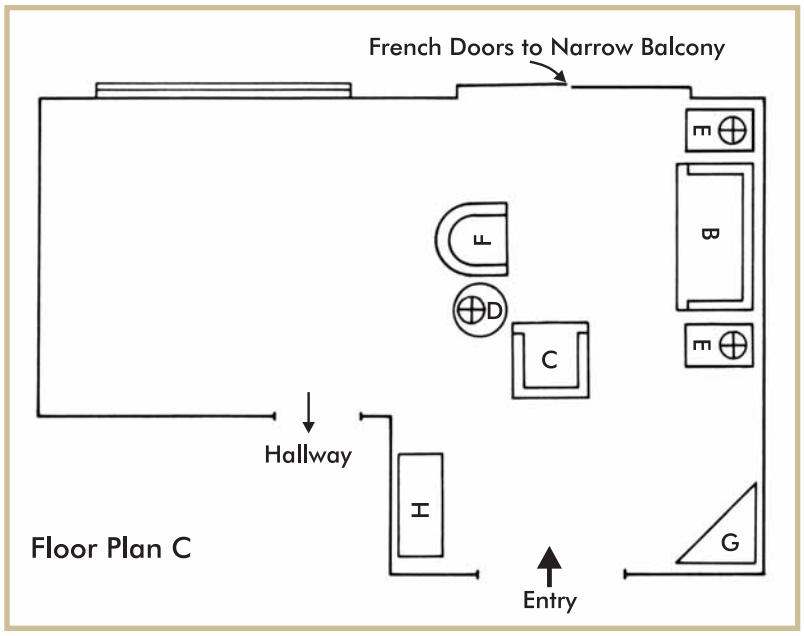
A.



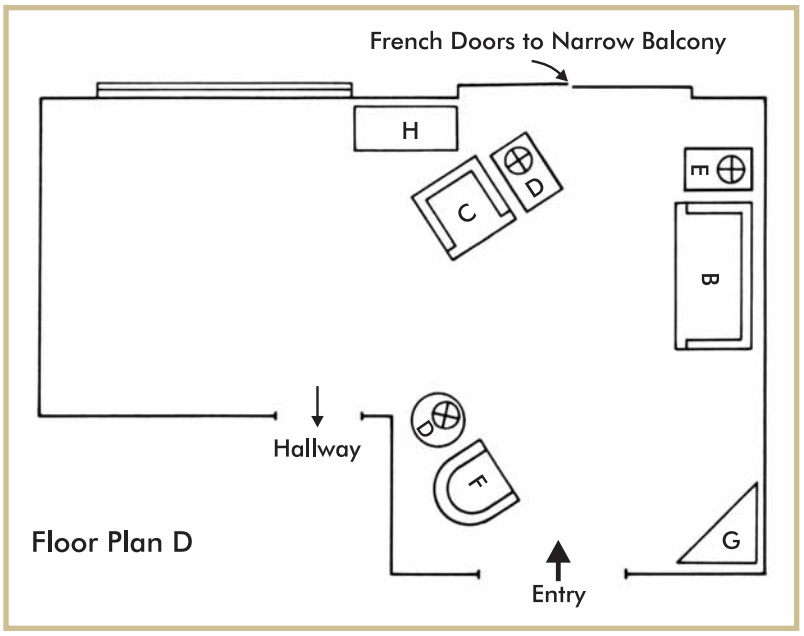
B.



C.

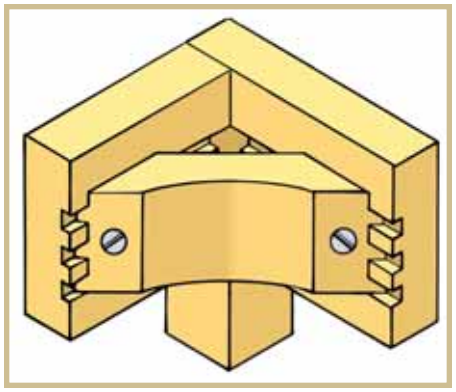


D.



10. What type of joint is illustrated in Examination Figure 5?

A. A dovetail joint
B. A tongue-and-groove joint
C. A double-doweled joint
D. A corner-blocked joint



EXAMINATION FIGURE 5—Use this illustration to answer question 10.

11. In what way is wood veneer considered superior to solid wood? Veneer is

A. more beautiful.
B. less expensive.
C. less likely to split, swell, shrink, or warp.
D. easier to work with in complex furniture pieces.

12. Which one of the following types of wood is considered to be a softwood?

A. Pine
B. Maple
C. Oak
D. Mahogany

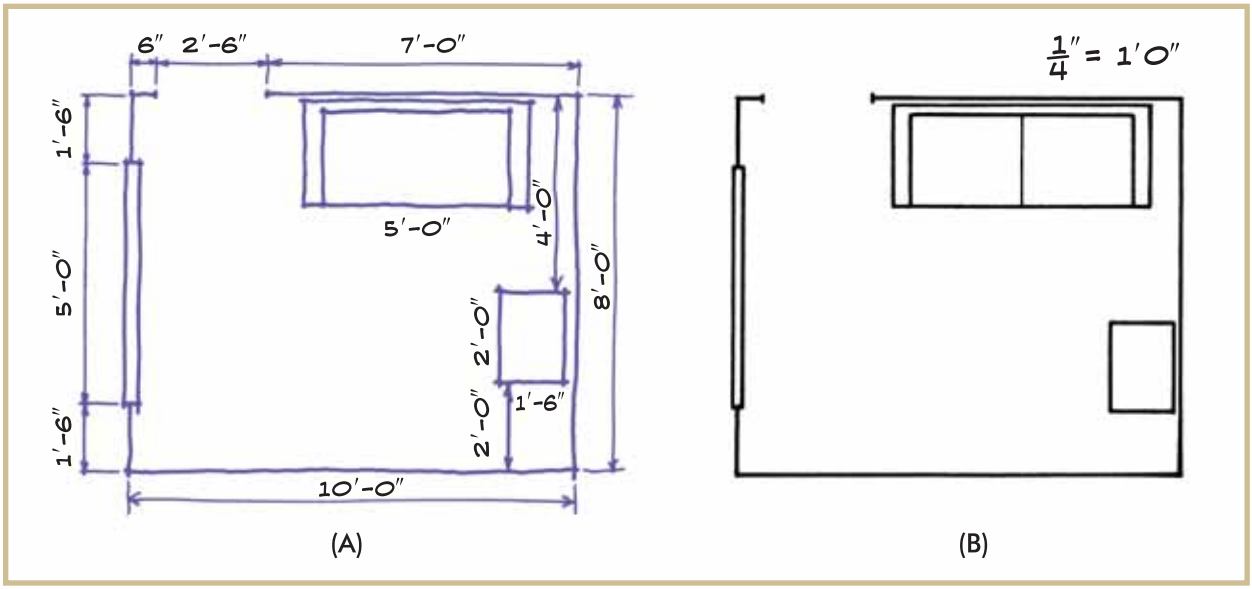
13. What does quilting do to a fabric?

A. It prevents the fabric from raveling.
B. It creates more give in the fabric.
C. It makes the fabric more durable.
D. It makes the fabric easier to work with.

14. Which one of these would you expect to find in a catalog of case goods?

A. Display cabinets
B. Wing chairs
C. End tables
D. Coffee tables

Use Examination Figure 6 to answer question 15.



EXAMINATION FIGURE 6—View A shows a rough sketch from which view B was drawn.

15. Based on the information in the rough sketch in view A, which one of these items is *incorrectly* placed in the finished drawing in view B?

A. The door
B. The window
C. The table
D. The sofa

16. A desk drawer should slide smoothly across

A. a dust panel.
B. a center track or side glide.
C. a tongue-and-groove joint.
D. casters.

17. When buying contract furniture for use in a hospital setting, you must take a number of factors into consideration. Which one of the following factors should you consider *last?*

A. Appearance
B. Comfort
C. Ease of maintenance
D. Durability

18. Of the following furnishings, which would provide the *most* flexibility in the living room of a client who will be moving into another home within two years? (Style isn't a consideration.)

A. Two love seats
B. A long sofa and a lounge chair
C. A set of small, exposed-frame chairs
D. A modular sofa

19. Which mix of horizontal and vertical lines in a room's furnishings will generally provide the *most* pleasing effect?

A. More vertical than horizontal
B. Half vertical and half horizontal
C. More horizontal than vertical
D. All horizontal (vertical lines are too threatening)

20. What tool allows you to draw parallel horizontal lines on plain paper?

A. T square
B. Triangle
C. Standard ruler
D. Scale ruler